

### Non-patent literature

File 155:MEDLINE(R) 1951-2005/Aug W1  
(c) format only 2005 Dialog  
File 5:Biosis Previews(R) 1969-2005/Aug W1  
(c) 2005 BIOSIS  
File 71:ELSEVIER BIOBASE 1994-2005/Jul W5  
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File 73:EMBASE 1974-2005/Aug 10  
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File 34:SciSearch(R) Cited Ref Sci 1990-2005/Aug W1  
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File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec  
(c) 1998 Inst for Sci Info  
File 94:JICST-EPlus 1985-2005/Jun W3  
(c) 2005 Japan Science and Tech Corp (JST)  
File 95:TEME-Technology & Management 1989-2005/Jul W1  
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File 99:Wilson Appl. Sci & Tech Abs 1983-2005/Jul  
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File 357:Derwent Biotech Res. 1982-2005/Aug W2  
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File 6:NTIS 1964-2005/Jul W5  
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File 8:EI Compendex(R) 1970-2005/Jul W5  
(c) 2005 Elsevier Eng. Info. Inc.

Set	Items	Description
S1	4996	(FACET OR ZYGAPOPHYSIAL) ()JOINT? ?
S2	4390	CEPHALAD? ?
S3	199202	VERTEBRA? ?
S4	1011006	PROSTHES?S OR IMPLANT?
S5	2421840	GRAFT??? OR TRANSPLANT?
S6	2047433	REPLACE? ? OR REPLACING OR REPLACEMENT OR SUBSTITUT?
S7	875713	ARTIFICIAL
S8	94828	CAUDAL
S9	358	S4:S7 AND S1
S10	0	S2 AND S9
S11	162	S3 AND S9
S12	15	S8 AND S9
S13	9	RD (unique items)
S14	2	S13/2004:2005
S15	7	S13 NOT S14
S16	397	S2(S)S4:S7
S17	53	S3 AND S16
S18	0	S1 AND S16
S19	53	S17 NOT S12
S20	32	RD (unique items)
S21	5	S20/2004:2005

S22            27    S20 NOT S21  
S23            27    Sort S22/ALL/PY,A  
S24            21    S2(2N)S4:S7  
S25            21    S24 NOT (S12 OR S17)  
S26            11    RD (unique items)  
S27            1    S26/2004:2005  
S28            10    S26 NOT S27  
S29            10    Sort S28/ALL/PY,A  
S30            13    S1 AND S2 AND S3  
S31            13    S30 NOT (S12 OR S17 OR S24)  
S32            7    RD (unique items)  
S33            7    Sort S32/ALL/PY,A

15/6/2        (Item 2 from file: 155)

10447399      PMID: 8130396

Burst-shear flexion-distraction injuries of the lumbar spine.

Dec 1993

15/6/3        (Item 3 from file: 155)

09674959      PMID: 1531558

In vivo facet joint loading of the canine lumbar spine.

Jan 1992

15/6/5        (Item 1 from file: 34)

05307525      Genuine Article#: VP489    Number of References: 113

Title: CLINICAL OUTCOMES AND RADIOLOGICAL INSTABILITY FOLLOWING

DECOMPRESSIVE LUMBAR LAMINECTOMY FOR DEGENERATIVE SPINAL STENOSIS - A

COMPARISON OF PATIENTS UNDERGOING CONCOMITANT ARTHRODESIS VERSUS

DECOMPRESSION ALONE (Abstract Available)

15/3,K/1      (Item 1 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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14030818      PMID: 11793155

[Discogenic low back pain and degenerative lumbar spinal stenosis - how appropriate is surgical treatment?]

Diskogener Ruckenschmerz und degenerative Spinalstenose - Wie sinnvoll sind operative Verfahren?

Mayer H M

Orthopadische Klinik Munchen-Harlaching/Wirbelsaulenzentrum, Munchen.  
MMayer@schoen-kliniken.de

Schmerz (Berlin, Germany) (Germany) Dec 2001, 15 (6) p484-91, ISSN  
0932-433X Journal Code: 8906258

Publishing Model Print

Document type: Journal Article; English Abstract

Languages: GERMAN

Main Citation Owner: NLM

Record type: MEDLINE; Completed

... studies comparing this technique with conservative therapy are still lacking. The same is true for artificial nucleus pulposus replacement using hydrogel cushions implanted in the intervertebral space after removal of the nucleus pulposus from posterior or through an anterior approach (PDN, prosthetic disc nucleus(TM)). In cases with severe disc degeneration total disc replacement is another innovative option (ProDisc(TM)). Two metal endplates with titanium surface coating are implanted through a minimal invasive anterior approach (mini-laparotomy).

A polyethylene inlay anchored in the **caudal** endplate holds the distance between the endplates and preserves the physiological range of motion between...

... spinal stenosis: Narrowing of the spinal canal due to degenerative changes of the disc, the **facet joints** and thickening of the yellow ligament is a geriatric disease which is diagnosed in increasing...

... fusion procedures. Non-fusion techniques such as intradiscal electro thermal therapy or spine arthroplasty with **replacement** of nucleus pulposus or total disc show promising early results; however, little is known about...

15/3,K/4 (Item 1 from file: 73)

DIALOG(R)File 73:EMBASE

(c) 2005 Elsevier Science B.V. All rts. reserv.

12003849 EMBASE No: 2003115694

**Evidence-based practice guidelines for interventional techniques in the management of chronic spinal pain**

Manchikanti L.; Staats P.S.; Singh V.; Schultz D.M.; Vilims B.D.; Jasper J.F.; Kloth D.S.; Trescot A.M.; Hansen H.C.; Falasca T.D.; Racz G.B.; Deer T.R.; Burton A.W.; Helm S.; Lou L.; Bakhit C.E.; Dunbar E.E.; Atluri S.L.; Calodney A.K.; Hassenbusch S.J.; Feler C.A.

Dr. L. Manchikanti, American Society, Interventional Pain Physicians,  
2831 Lone Oak Road, Paducah, KY 42003 United States

AUTHOR EMAIL: drl@apex.net

Pain Physician ( PAIN PHYS. ) (United States) 2003, 6/1 (3-81)

CODEN: PPAHA ISSN: 1533-3159

DOCUMENT TYPE: Journal ; Review

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

NUMBER OF REFERENCES: 1175

...and therapeutic interventional techniques are included in this document. Strong evidence was shown for diagnostic **facet joint** blocks for the diagnosis of **facet joint** pain, and lumbar provocative discography for discogenic pain. Moderate evidence was shown for sacroiliac joint...

...was shown for multiple therapeutic interventional techniques including medial branch blocks and medial branch neurotomy; **caudal** epidural steroid injections and transforaminal epidural steroid injections; lumbar percutaneous adhesiolysis; and **implantable** therapies. These guidelines do not constitute inflexible treatment recommendations. It is expected that a provider...

15/3,K/6 (Item 2 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

(c) 2005 Inst for Sci Info. All rts. reserv.

05065090 Genuine Article#: TN118 No. References: 165

**Title: THE TREATMENT OF DEGENERATIVE LUMBAR DISORDERS - A CRITICAL-REVIEW OF THE LITERATURE**

Author(s): ZDEBLICK TA

Corporate Source: UNIV WISCONSIN, DEPT ORTHOPED SURG, 600 HIGHLAND

AVE, G5-314/MADISON//WI/53792

Journal: SPINE, 1995, V20, N24 (DEC 15), PS126-S137

ISSN: 0362-2436

Language: ENGLISH Document Type: REVIEW (Abstract Available)

...Abstract: described based on the literature. Less rigorous data are

presented for indications for fusion in facet joint syndrome, discogenic pain, and lumbar spondylosis. Spinal fusion plays an important role in the treatment...

Research Fronts: 94-3697 004 (PERCUTANEOUS RADIOFREQUENCY LUMBAR FACET DENERVATION FOR CHRONIC LOW-BACK-PAIN; CAUDAL EPIDURAL BLOCKS; MANAGEMENT OF MUSCULOSKELETAL INJURIES)

94-3779 002 (LUMBAR SPINE; AUTOMATED PERCUTANEOUS DISKECTOMY; MECHANISMS...

...LUMBAR DISC HERNIATION; BACK PAIN)

94-7282 001 (ANTERIOR LUMBAR FUSION; ILIAC CREST; AUTOGENOUS BONE-GRAFTS )

23/6/3 (Item 3 from file: 5)

0005172999 BIOSIS NO.: 198682019386

THE HISTOPATHOLOGICAL CHANGES OF EPIDURAL SPACE AND CHANGES OF EFFECT OF ANESTHESIA AFTER LONG-TERM CONTINUOUS EPIDURAL BLOCK

1986

23/6/4 (Item 4 from file: 73)

03428936 EMBASE No: 1987181513

A morphometric study of human lumbar and selected thoracic vertebrae  
1987

23/6/5 (Item 5 from file: 155)

07958308 PMID: 3616751

A morphometric study of human lumbar and selected thoracic vertebrae .  
May 1987

23/6/8 (Item 8 from file: 73)

03947737 EMBASE No: 1989116730

Arthrodesis of the cervical spine in rheumatoid arthritis  
1989

23/6/10 (Item 10 from file: 155)

09623260 PMID: 1762002

Three-dimensional load displacement properties of posterior lumbar fixation.  
1991

23/6/11 (Item 11 from file: 155)

09496693 PMID: 1679113

Biomechanical studies of the anterior spinal fixators after corpectomy in pigs.  
Jan 1991

23/6/12 (Item 12 from file: 155)

09352775 PMID: 2002073

Treatment of cervical spondylotic myelopathy by enlargement of the spinal canal anteriorly, followed by arthrodesis.  
Mar 1991

23/6/14 (Item 14 from file: 73)

06932470 EMBASE No: 1997216969

Vertebral body fractures following extensive anterior cervical surgical procedures for ossification of the posterior longitudinal ligament  
1997

23/6/15 (Item 15 from file: 155)

12122936 PMID: 9422900

Knee-chest vs horizontal side position during induction of spinal anaesthesia in patients undergoing lumbar disc surgery.

Nov 1997

23/6/16 (Item 16 from file: 73)

07264415 EMBASE No: 1998170534

International Conference on Spinal Surgery 1996, Taipei, Taiwan, 3-5 May 1996: Stiffness between different directions of transpedicular screws and vertebra

1998

23/6/17 (Item 17 from file: 34)

06742275 Genuine Article#: ZP231 Number of References: 21

Title: Stiffness between different directions of transpedicular screws and vertebra (ABSTRACT AVAILABLE)

Publication date: 19980000

23/6/21 (Item 21 from file: 155)

14602253 PMID: 14588271

Computed tomography validating bony ingrowth into fibula strut allograft: a criterion for fusion.

Mar-Apr 2002

23/3,K/1 (Item 1 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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07170303 PMID: 3882300

Unilateral posterior lumbar interbody fusion: simplified dowel technique.

Blume H G

Clinical orthopaedics and related research (UNITED STATES) Mar 1985, (193) p75-84, ISSN 0009-921X Journal Code: 0075674

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

... simplified unilateral posterior lumbar interbody fusion (U-PLIF) in which the disc was removed and replaced by bone. The disc was approached far laterally by removing two-thirds of the superior...

... most of the ligamentum flavum, removing the disc, decorticating in a semicircular fashion the adjacent vertebral bodies unilaterally close to the midline, and packing the anterior one-fourth of the interspace...

... Consolidation of the fusion and stabilization of the motion segment of Junghanns from either the cephalad or caudal end of the bone grafts were verified by motion roentgenographic films, CT scans, and/or examinations during the follow-up...

Descriptors: \*Bone Transplantation; \*Lumbar Vertebrae --surgery--SU; \*Spinal Fusion--methods--MT; Follow-Up Studies; Humans; Ilium --transplantation--TR; Lumbar Vertebrae --radiography--RA; Spinal Fusion --instrumentation--IS; Transplantation, Autologous

23/3,K/2 (Item 2 from file: 155)

DIALOG(R) File 155:MEDLINE(R)  
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07509620 PMID: 3955974

**Segmental spinal instrumentation of the lumbar spine.**

Luque E R

Clinical orthopaedics and related research (UNITED STATES) Feb 1986,  
(203) p126-34, ISSN 0009-921X Journal Code: 0075674

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

... should be rigid. The rectangular or rhomboid-shaped rod, bent to conform to the lamina cephalad and caudad, and fixed segmentally, proves to be the most rigid. It is contoured to maintain lordosis, sometimes in distraction, sometimes in compression. Fixation is not a substitute for correction of bony deformity or a good surgical arthrodesis. The objective is to maintain...

Descriptors: \*Lumbar Vertebrae --surgery--SU; \*Orthopedic Fixation Devices

23/3,K/6 (Item 6 from file: 155)

DIALOG(R) File 155:MEDLINE(R)  
(c) format only 2005 Dialog. All rts. reserv.  
08356513 PMID: 3417703

**Biomechanical analysis of anterior and posterior instrumentation systems after corpectomy. A calf-spine model.**

Gurr K R; McAfee P C; Shih C M

Department of Orthopaedic Surgery, Johns Hopkins University School of Medicine, Baltimore.

Journal of bone and joint surgery. American volume (UNITED STATES) Sep 1988, 70 (8) p1182-91, ISSN 0021-9355 Journal Code: 0014030

Contract/Grant No.: 1 R29 AR38489-01; AR; NIAMS

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

... stabilization was accomplished. The three anterior-stabilization constructs that were compared were: (1) iliac strut **grafting**, (2) polymethylmethacrylate and anterior Harrington-rod instrumentation (the technique of Siegal and Siegal), and (3) the Kaneda anterior device. After anterior iliac-crest strut **grafting**, four types of posterior instrumentation were also tested sequentially: (1) Harrington distraction rods, (2) Luque...

... Homogeneous subsets of rigidity for torsional stiffness revealed that the least rigid constructs were iliac **grafting** alone, Harrington-rod instrumentation, and Luque rectangular instrumentation. The most rigid constructs were the anterior...

... loading. Using the most rigid anterior system, the Kaneda device, the fixation extended only one **vertebral** level **cephalad** and one level caudad to the corpectomy defect. (ABSTRACT TRUNCATED AT 400 WORDS)

; Animals; Biomechanics; Bone Screws; Cattle; Disease Models, Animal; Intervertebral Disk Displacement--etiology--ET; Lumbar Vertebrae --physiopathology--PP; Lumbar Vertebrae --surgery--SU; Prostheses and

Implants--adverse effects--AE; Spine--physiopathology--PP

23/3,K/7 (Item 7 from file: 5)  
DIALOG(R) File 5: Biosis Previews(R)  
(c) 2005 BIOSIS. All rts. reserv.  
0006237107 BIOSIS NO.: 198886077028  
**BIOMECHANICAL ANALYSIS OF POSTERIOR INSTRUMENTATION SYSTEMS AFTER  
DECOMPRESSIVE LAMINECTOMY AN UNSTABLE CALF-SPINE MODEL**  
AUTHOR: GURR K R (Reprint); MCAFEE P C; SHIH C-M  
AUTHOR ADDRESS: DEP ORTHOPEDIC SURG, JOHNS HOPKINS HOSP, 608 N WOLFE ST,  
BALTIMORE, MD 21205, USA\*\*USA  
JOURNAL: Journal of Bone and Joint Surgery American Volume 70 (5): p  
680-691 1988  
ISSN: 0021-9355  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: ENGLISH  
...ABSTRACT: Each spine was destabilized with bilateral laminectomy and  
facetectomy of the fourth and fifth lumbar **vertebrae**, resection of the  
pars interarticularis of the fourth lumbar and fifth lumbar **vertebrae**.  
Sequential stabilization of each spine was used to compare the stiffness  
of: Harrington distraction instrumentation...  
...rotation and flexion than when it was subjected to axial compressive  
loads; the most rigid **implant** was the Cotrel-Dubousset transpedicular  
instrumentation of five **vertebral** levels ( $p < 0.05$ ); and with the  
Steffee or the Cotrel-Dubousset transpedicular instrumentation of three  
**vertebral** levels, it was possible to restore torsional, compressive, and  
flexural rigidity to the destabilized spine of the calf. Furthermore,  
transpedicular fixation of only three **vertebral** levels provides more in  
vitro stability than either traditional Harrington or Luque rectangular  
instrumentation, which require fixation of five **vertebral** levels to  
stabilize a spine after laminectomy. After laminectomy, correction of  
instability may be possible with transpedicular instrumentation of only  
the abnormal **vertebral** levels. This is better than the traditional  
Harrington and Luque methods, which require fixation to the laminae at  
one level **cephalad** and one level caudad to the defect. Transpedicular  
systems of fixation allow preservation of more **vertebral** motion  
segments and might help to reduce the mechanical causes of back pain  
after a...

23/3,K/13 (Item 13 from file: 155)  
DIALOG(R) File 155:MEDLINE(R)  
(c) format only 2005 Dialog. All rts. reserv.  
10141022 PMID: 8470009  
**Residual intersegmental spinal mobility following limited pedicle  
fixation of thoracolumbar spine fractures with the fixateur interne.**  
Lindsey R W; Dick W; Nunchuck S; Zach G  
Baylor College of Medicine, Department of Orthopaedic Surgery, Houston,  
Texas.  
Spine (UNITED STATES) Mar 15 1993, 18 (4) p474-8, ISSN 0362-2436  
Journal Code: 7610646  
Publishing Model Print  
Document type: Journal Article  
Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

... To date, no data exist that both localize and quantitate spinal mobility about the fractured **vertebra**. Voluntary maximum lateral flexion and extension radiographs were obtained on patients with unstable thoracolumbar spine fractures at a minimum of 2 years after Fixateur Interne instrumentation ( **implant** was removed after 1 year). Residual intersegmental motion was measured at levels adjacent to both the **vertebra** fracture and the fixation. Fifty-nine patients were reviewed, and the posterior **vertebral** body angle demonstrated a mean total sagittal motion of 2.98 degrees. **Cephalad** and caudal to the fractured **vertebra**, a mean of 1.34 degrees and 3.08 degrees, respectively, of residual motion was noted; **cephalad** and caudal to the previously instrumented segment a mean of 3.22 degrees and 6...

... is most evident at the caudal end of the instrumented segment, removed from the fractured **vertebra**. The level with end plate disruption becomes essentially ankylosed, with or without a fusion.

Descriptors: \*Lumbar **Vertebrae** --injuries--IN; \*Movement; \*Orthopedic Fixation Devices; \*Spinal Fractures--surgery--SU; \*Spine--physiopathology --PP; \*Thoracic **Vertebrae** --injuries--IN

23/3,K/19 (Item 19 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

(c) 2005 Inst for Sci Info. All rts. reserv.

09956987 Genuine Article#: 467UJ No. References: 33

Title: Incidence of complications of the screw osteosynthesis of odontoid process fractures

Author(s): Arand M (REPRINT) ; Lemke M; Kinzl L; Hartwig E

Corporate Source: Univ Ulm, Abt Unfallchirurg Hand Plast &

Wiederherstellungs, Steinhovelstr 9/D-89075 Ulm//Germany/ (REPRINT);

Univ Ulm, Abt Unfallchirurg Hand Plast & Wiederherstellungs, D-89075

Ulm//Germany/

Journal: ZENTRALBLATT FUR CHIRURGIE, 2001, V126, N8 (AUG), P610-615

ISSN: 0044-409X Publication date: 20010800

Publisher: JOHANN AMBROSIUS BARTH VERLAG, IM WEIHER 10, D-69121 HEIDELBERG, GERMANY

Language: German Document Type: ARTICLE (ABSTRACT AVAILABLE)

...Abstract: in 6 patients an oblique type II fracture was present and one patient showed a **cephalad** type III fracture. Preoperatively, in only 19% of the patients (n = 11) no dislocation of...

...occurred. 32 patients were treated with single screw osteosynthesis, in 26 patients two screws were **implanted**. Significant complications with clinical relevance were registered in 14 patients (24%), in 10 cases (17...

...the screw posteriorly to the odontoid process was observed. A clearly excentric positioning of the **implant** was evaluated in 5 patients with a consecutive high rate of **implant** migration (n = 3). Two patients died perioperatively not related to the cervical injury.

Postoperatively, one...

...perforation of the esophagus required reoperation as well as 4 patients with instability because of **implant** migration. Patients beyond the age of 65 years (n = 3) were significantly overrepresented in that...

...Identifiers--2ND CERVICAL **VERTEBRA** ; FIXATION; MANAGEMENT; AXIS; ANATOMY; FUSION; SPINE; DENS



23/3,K/20 (Item 20 from file: 5)  
DIALOG(R)File 5:BIOSIS Previews(R)  
(c) 2005 BIOSIS. All rts. reserv.  
0013206181 BIOSIS NO.: 200100378020  
**Anterior spinal instrumentation and method for implantation and revision**  
AUTHOR: Michelson Gary K (Reprint); Boyd Lawrence M  
AUTHOR ADDRESS: 438 Sherman Canal, Venice, CA, 90281, USA\*\*USA  
JOURNAL: Official Gazette of the United States Patent and Trademark Office  
Patents 1243 (3): Feb. 20, 2001 2001  
MEDIUM: e-file  
PATENT NUMBER: US 6190388 PATENT DATE GRANTED: February 20, 2001 20010220  
PATENT CLASSIFICATION: 606-61 PATENT COUNTRY: USA  
ISSN: 0098-1133  
DOCUMENT TYPE: Patent  
RECORD TYPE: Abstract  
LANGUAGE: English  
ABSTRACT: A system and method for anterior fixation of the spine utilizes a  
cylindrical implant engaged in the a intradiscal space at the cephalad  
and caudal ends of the construct. The implants are cylindrical fusion  
devices (10) filled with bone material to promote bone ingrowth and  
fusion...  
...devices (10) and bone screws (30) having similar attachment members (33)  
are engaged in the vertebral bodies of the intermediate vertebrae . A  
spinal rod (50) is connected to each of the attachment members using an  
eyebolt...  
...advanced. The trephine (70) has an inner diameter larger than the  
diameter of the fusion implant and includes cutting teeth (72) for  
extracting a core (84) of bone material around the fusion implant . The  
trephine (70) and guide member (62) are removed along with the bone core  
(84) containing the fusion implant (10). The trephine (70) is also used  
to extract a bone dowel from a solid...

23/3,K/22 (Item 22 from file: 155)  
DIALOG(R)File 155:MEDLINE(R)  
(c) format only 2005 Dialog. All rts. reserv.  
14495084 PMID: 12438983  
**Sagittal plane analysis of adolescent idiopathic scoliosis: the effect of  
anterior versus posterior instrumentation.**  
Rhee John M; Bridwell Keith H; Won Douglas S; Lenke Lawrence G;  
Chotigavanichaya Chatupon; Hanson Darrell S  
Department of Orthopaedic Surgery, Washington University School of  
Medicine, St. Louis, Missouri 63110, USA.  
Spine (United States) Nov 1 2002, 27 (21) p2350-6, ISSN 1528-1159  
Journal Code: 7610646  
Publishing Model Print; Comment in Spine. 2003 Jul 15;28(14) 1624-5;  
author reply 1625; Comment in PMID 12865858  
Document type: Journal Article  
Languages: ENGLISH  
Main Citation Owner: NLM  
Record type: MEDLINE; Completed  
... were instrumented anteriorly with single screw-rod constructs. Sixty  
patients were instrumented posteriorly with segmental implants (5.5 mm;  
hooks, wires, and/or pedicle screws). RESULTS: At the final follow-up, the  
proximal junctional measurement (measured between the proximal instrumented

**vertebra** and the segment two levels **cephalad** ) increased most with posterior instrumentation (+7 degrees increase for posterior thoracic +1 degrees increase for...

... or posterior instrumentation. No significant changes in distal junctional measurement (measured between the distal instrumented **vertebra** and the segment two levels caudal) were noted. The C7 sagittal plumbline remained negative in...

...; Studies; Humans; Kyphosis--etiology--ET; Kyphosis--radiography--RA; Lordosis--etiology--ET; Lordosis--radiography--RA; Lumbar **Vertebrae** --radiography--RA; Spinal Fusion--adverse effects--AE; Spine--radiography--RA; Spine--surgery--SU; Thoracic **Vertebrae** --radiography--RA; Treatment Outcome

23/3,K/24 (Item 24 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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14944460 PMID: 12942004

**Morphometric evaluation of screw fixation in atlas via posterior arch and lateral mass.**

Tan Mingsheng; Wang Huimin; Wang Yunting; Zhang Guangbo; Yi Ping; Li Zirong; Wei Hongyu; Yang Feng

Department of Orthopedics Surgery, China-Japan Friendship Hospital, Ministry of Health, Beijing, People's Republic of China. zrtanms@sina.com

Spine (United States) May 1 2003, 28 (9) p888-95, ISSN 1528-1159  
Journal Code: 7610646

Publishing Model Print; Comment in Spine. 2004 Aug 1;29(15) 1706; author reply 1706; Comment in PMID 15284522

Document type: Clinical Trial; Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

... 1939 gave a report on a posterior wiring technique that depended on a structural bone **graft** . Since then, double-looped wiring with two bone **grafts** and Halifax clamp technique had been introduced. A transarticular screw fixation technique was introduced by...

... and radiologically with vernier calipers, protractors, and CT. The parameters of posterior arch, lateral mass, **vertebral** artery groove, axis length of screw path via posterior arch and lateral mass, the entry...

... The direction of screw placement is perpendicular to the coronal plane and about 5 degrees **cephalad** to the transverse plane. Ten screws via posterior arch and lateral mass were placed properly...

23/3,K/25 (Item 25 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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14678659 PMID: 12612617

**Anterior cervical dynamic ABC plating with single level corpectomy and fusion in forty-two patients.**

Epstein N E

The Albert Einstein College of Medicine, Bronx, NY, USA.

Spinal cord - the official journal of the International Medical Society of Paraplegia (England) Mar 2003, 41 (3) p153-8, ISSN 1362-4393

Journal Code: 9609749

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

... were evaluated. The unique ABC slotted plate design allows for up to 10 mm of **cephalad** and 10 mm of caudad plate migration. OBJECTIVES: To evaluate the incidence and etiology of...

...months postoperatively, in 42 patients documented the presence of fusion or complications including plate or **graft** extrusion or pseudarthrosis.

RESULTS: Four (9.5%) of 42 patients developed postoperative plate or **graft**-related complications during the average follow up interval of 34 months. One patient, with a plate/ **graft** extrusion, required a second two level ACF with posterior wiring and fusion (PWF). Two patients...

... level ACF performed utilizing dynamic ABC plates were attributed to reduced stress shielding and greater **graft** compression afforded by the unique plate design. Applying dynamic ABC plates for one level ACF...

Descriptors: \*Bone Plates; \*Cervical **Vertebrae** --surgery--SU; \*Spinal Fusion--methods--MT; Adult; Aged; Bone Plates--adverse effects--AE; Cervical **Vertebrae** --radiography--RA; Follow-Up Studies; Humans; Middle Aged; Spinal Fusion--adverse effects--AE; Spinal Fusion...

23/3,K/26 (Item 26 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

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0014345148 BIOSIS NO.: 200300313867

**Method and apparatus for providing posterior or anterior trans-sacral access to spinal vertebrae**

AUTHOR: Cragg Andrew H (Reprint)

JOURNAL: Official Gazette of the United States Patent and Trademark Office  
Patents 1271 (2): June 10, 2003 2003

MEDIUM: e-file

PATENT NUMBER: US 6575979 PATENT DATE GRANTED: June 10, 2003 20030610

PATENT CLASSIFICATION: 606-86 PATENT ASSIGNEE: Axiamed, Inc.

PATENT COUNTRY: USA

ISSN: 0098-1133 (ISSN print)

DOCUMENT TYPE: Patent

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: Methods and apparatus for providing percutaneous access to the human sacral and lumbar **vertebrae** in alignment with a visualized, trans-sacral axial instrumentation/fusion (TASIF) line in a minimally...  
...PAIFL) extending from the respective anterior or posterior target point through at least one sacral **vertebral** body and one or more lumbar **vertebral** body in the **cephalad** direction and visualized by radiographic or fluoroscopic equipment. The anterior or posterior percutaneous pathway so...  
...and instruments for boring one or more respective anterior or posterior TASIF bore in the **cephalad** direction through the one or more **vertebral** bodies and intervening discs, if present. A single anterior or posterior TASIF bore is preferably...  
...are preferably aligned in parallel with the respective visualized AAIFL or PAIFL. Introduction of spinal **implants** and instruments is enabled by the provision of the percutaneous pathway in accordance with the...

odontoid...

29/3,K/9 (Item 9 from file: 155)  
DIALOG(R) File 155:MEDLINE(R)  
(c) format only 2005 Dialog. All rts. reserv.  
12823470 PMID: 10761943  
The safety and efficacy of Isola-Galveston instrumentation and arthrodesis in the treatment of neuromuscular spinal deformities.  
Yazici M; Asher M A; Hardacker J W  
University of Kansas Medical Center, Kansas City, USA.  
Journal of bone and joint surgery. American volume (UNITED STATES) Apr 2000, 82 (4) p524-43, ISSN 0021-9355 Journal Code: 0014030  
Publishing Model Print  
Document type: Journal Article  
Languages: ENGLISH  
Main Citation Owner: NLM  
Record type: MEDLINE; Completed  
... one, for a pseudarthrosis repair. The remaining two reoperations were done for removal of an **implant** because the **cephalad** portion had become prominent. In addition to the pseudarthrosis that required a reoperation, there were...

29/3,K/10 (Item 10 from file: 155)  
DIALOG(R) File 155:MEDLINE(R)  
(c) format only 2005 Dialog. All rts. reserv.  
13673421 PMID: 11315781  
Bone density adjacent to press-fit acetabular components. A prospective analysis with quantitative computed tomography.  
Wright J M; Pellicci P M; Salvati E A; Ghelman B; Roberts M M; Koh J L  
The Hospital for Special Surgery, New York, NY 10021, USA.  
Journal of bone and joint surgery. American volume (United States) Apr 2001, 83-A (4) p529-36, ISSN 0021-9355 Journal Code: 0014030  
Publishing Model Print  
Document type: Journal Article  
Languages: ENGLISH  
Main Citation Owner: NLM  
Record type: MEDLINE; Completed  
...it was also significantly reduced (by 35 mg/cc) at a distance of 10 mm **cephalad** to the **implant** (p = 0.001). Relative declines in mean density ranged from 33% to 20% of the...

33/6/6 (Item 6 from file: 155)  
16116893 PMID: 15356903  
Radiographic criteria for placement of translaminal facet screws.  
Jul-Aug 2004

33/6/7 (Item 7 from file: 155)  
18155259 PMID: 15723250  
Cervical spine injuries associated with lateral mass and facet joint fractures: new classification and surgical treatment with pedicle screw fixation.  
Feb 2005

33/7/2 (Item 2 from file: 73)

DIALOG(R) File 73:EMBASE

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04817269 EMBASE No: 1991312005

**Anatomic considerations for plate-screw fixation of the cervical spine**

An H.S.; Gordin R.; Renner K.

Orthopaedic Surgery Department, Medical College of Wisconsin, Milwaukee,  
WI 53226 United States

Spine ( SPINE ) (United States) 1991, 16/10 SUPPL. (S548-S551)

CODEN: SPIND ISSN: 0362-2436

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

A cadaveric study was done to investigate the variability of interfacet distances from C3 to C7, to learn pedicle morphology at C7-T2, and to determine potential dangers of plate-screw osteosynthesis technique of the cervical spine. Twenty-two cadavers were dissected from C2 to C7 to expose the lateral masses and nerve roots. The interfacet distances from the center of the lateral mass to the next lateral mass from C3 to C7 vary widely among different individuals, ranging from 9 mm to 16 (average, 13 mm). A new plate design is necessary to better accommodate the differences in interfacet distances among different patients and different levels. The second part of the study involved 11 dissected cadaveric specimens of the cervicothoracic junction. The pedicle entry point was 1 mm inferior to the midportion of the facet joint for C7, T1, and T2. The medial angulation averaged 34degree at C7, 31.8degree at T1, and 26.5degree at T2. The mediolateral and superoinferior outer pedicle diameters were 6.9 mm and 7.5 mm at C7, 8.5 mm and 9.5 mm at T1, and 7.5 mm and 10.7 mm at T2, respectively. The mediolateral inner diameter averaged 5.18 mm, 6.4 mm, 5.5 mm for C7, T1 and T2, respectively. The pedicle distances (from the entry point to the posterior vertebral body line) measured 9.1 mm, 9.9 mm, and 10.4 mm for respective levels. The margins for error are small when using pedicle screws at these levels. If a pedicle screw must be used at C7, T1, and T2, one must have precise knowledge of the entrance point, diameters, and 25-30degree medial direction. The third part of the experiment involved 18 fresh cadaveric specimens for the study of the anatomy of the nerve root, vertebral artery, and spinal cord in relation to drill trajectory and inserted screws. The vertebral artery and spinal cord were virtually free of danger with known techniques. The purpose of this experiment was then to find the trajectory that is safest for the nerve roots. The nerve root exits at the anterolateral portion of the superior facet, and the more medial angulation or the more cephalad angulation of the screw, the more likely it is to impinge on the nerve root. The ideal exit point of the drill was determined to be the juncture between the transverse process and the facet. The safest screw direction is determined to be 33degree lateral and 17degree cephalad starting 1 mm medial to the center of the lateral mass for C3-C6 in order to avoid both the nerve root and the facet joint. The depth of these screws ranged from 7 mm to 18 mm with an average of 10 mm, using this technique. The lateral mass is thin at the transitional C7 level, and lateral mass screw is dangerous in disrupting the nerve root or the facet joint.

33/7/3 (Item 3 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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10356569 PMID: 8235871

**Pedicle morphology of the lower thoracic and lumbar spine in a Chinese**

**population.**

Hou S; Hu R; Shi Y

Department of Orthopaedics, Trauma Hospital of 304th PLA, Post-Graduate Medical College, Beijing, China.

Spine (UNITED STATES) Oct 1 1993, 18 (13) p1850-5, ISSN 0362-2436  
Journal Code: 7610646

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

Knowledge of pedicle diameter and surface landmarks is crucial for safe placement of screws. Little attention has been paid to variations of entrance points for pedicle screws, differentiation of male and female pedicle sizes and pedicle size differences in nonwhite populations. Forty thoracolumbar spinal columns from T9 to L5 were measured using vernier calipers. **Cephalad** -caudad and medial-lateral diameter of the pedicle, length of the pedicle from posterior cortex to anterior cortex at the midline and parallel to midline was measured. Relation of the centre of the pedicle to the transverse process (TP) and to the superior **facet joint** was noted. Twenty-five male and 15 female specimens were measured. Average pedicle width in the female was 5.2 mm at T9 (SD 0.9) to 13 mm at L5 (SD 2.7) and in the male 6.0 mm at T9 (SD 1.1) to 12.8 mm at L5 (SD 2.7).

**Cephalad** caudad diameter was 12.5 mm (SD 1.2) at T9 to 20.5 mm (SD 3.6) at L5 in the male and in the female 12.2 mm (SD 1.3) at T9 to 18.7 mm (SD 3.9) at L5. All specimens had starting points **cephalad** to the midpoint of the TP at T9. At L5, 37 of 40 specimens had starting points at the midpoint of the TP. Starting points were parallel to the middle or lateral third of the superior **facet joint** at T9. At L5 starting points were at least one third of the **facet joint** lateral to the lateral border of the facet. Female pedicle width was smaller than male at T9 ( $P = 0.03$ ) and T12 ( $P = 0.04$ ). (ABSTRACT TRUNCATED AT 250 WORDS)

Record Date Created: 19931216

Record Date Completed: 19931216

33/7/4 (Item 4 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

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03563921 Genuine Article#: PN387 Number of References: 0

(NO REFS KEYED)

**Title: DEGENERATIVE LUMBAR SPONDYLOLISTHESIS - A METAANALYSIS OF LITERATURE 1970-1993**

Author(s): MARDJETKO SM; CONNOLLY PJ; SHOTT S

Corporate Source: RUSH PRESBYTERIAN ST LUKES MED CTR, DEPT ORTHOPED  
SURG/CHICAGO//IL/60612

Journal: SPINE, 1994, V19, N20 (OCT 15), PS2256-S2265

ISSN: 0362-2436

Language: ENGLISH Document Type: ARTICLE

**Abstract:** Degenerative spondylolisthesis is a distinct clinical entity characterized by degenerative arthritis of the **facet joints** in association with disc degeneration. Erosion and remodeling of the **facet joint** complex allows anterolisthesis of the **cephalad** on the caudad lumbar **vertebra** .20

The pathoanatomic elements of **facet joint** arthritis, anterolisthesis, disc height loss, and ligamentum flavum redundancy all

contribute to the development of spinal stenosis involving to a variable degree the central canal, lateral recess, and foraminal zones.<sup>24</sup>

The clinical presentation of patients is one of a long history of back pain with insidious onset of radicular leg pain and/or neurogenic claudication. This condition is recognized as the classic example of chronic lumbar instability.<sup>17</sup> It occurs with greater frequency in blacks and females and is rare before 35 years of age. The most common level is L4-L5 followed by L3-L4 and L5-S1. The presence of a pars interarticularis defect excludes the diagnosis of degenerative spondylolisthesis.<sup>7</sup>

This study was designed and executed in an attempt to collect and analyze the published data on degenerative spondylolisthesis to evaluate the feasibility of its use as a literature control to compare with the Historical Cohort pedicle screw study data.

File 149:TGG Health&Wellness DB(SM) 1976-2005/Jul W5  
(c) 2005 The Gale Group  
File 148:Gale Group Trade & Industry DB 1976-2005/Aug 11  
(c) 2005 The Gale Group  
File 16:Gale Group PROMT(R) 1990-2005/Aug 10  
(c) 2005 The Gale Group  
File 160:Gale Group PROMT(R) 1972-1989  
(c) 1999 The Gale Group  
File 621:Gale Group New Prod.Annou. (R) 1985-2005/Aug 11  
(c) 2005 The Gale Group  
File 129:PHIND(Archival) 1980-2005/Jul W5  
(c) 2005 T&F Informa UK Ltd  
File 135:NewsRx Weekly Reports 1995-2005/Aug W1  
(c) 2005 NewsRx  
File 635:Business Dateline(R) 1985-2005/Aug 11  
(c) 2005 ProQuest Info&Learning  
File 636:Gale Group Newsletter DB(TM) 1987-2005/Aug 10  
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File 98:General Sci Abs/Full-Text 1984-2004/Dec  
(c) 2005 The HW Wilson Co.  
File 369:New Scientist 1994-2005/May W5  
(c) 2005 Reed Business Information Ltd.  
File 370:Science 1996-1999/Jul W3  
(c) 1999 AAAS  
File 441:ESPICOM Pharm&Med DEVICE NEWS 2005/Jul W2  
(c) 2005 ESPICOM Bus.Intell.

Set	Items	Description
S1	351	(FACET OR ZYGAPOPHYSIAL) ( )JOINT? ?
S2	268	CEPHALAD? ?
S3	11109	VERTEBRA? ?
S4	146659	PROSTHES?S OR IMPLANT?
S5	199489	GRAFT??? OR TRANSPLANT?
S6	1989089	REPLACE? ? OR REPLACING OR REPLACEMENT OR SUBSTITUT?
S7	199571	ARTIFICIAL
S8	1535	CAUDAL
S9	59	S2 AND (S1 OR S3)
S10	33	S4:S7 AND S9
S11	24	RD (unique items)
S12	0	S11/2004:2005
S13	24	Sort S11/ALL/PD,A
S14	197	(S8 AND (S1 OR S3)) NOT S10
S15	13	S4:S7(S)S8 AND S14
S16	12	RD (unique items)
S17	12	Sort S16/ALL/PD,A
S18	26	S9 NOT (S10 OR S15)
S19	23	RD (unique items)
S20	1	S19/2004:2005
S21	22	S19 NOT S20
S22	22	Sort S21/ALL/PD,A

13/3,K/12 (Item 12 from file: 149)  
DIALOG(R)File 149:TGG Health&Wellness DB(SM)  
(c) 2005 The Gale Group. All rts. reserv.  
01434599 SUPPLIER NUMBER: 14760750 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
Pedicle screw: too much, too soon? (bone screw device for scoliosis surgery)



The Back Letter, v8, n10, p1(2)  
Oct,  
1993

PUBLICATION FORMAT: Newsletter ISSN: 0894-7376 LANGUAGE: English  
RECORD TYPE: Fulltext TARGET AUDIENCE: Consumer  
WORD COUNT: 1142 LINE COUNT: 00095

... permanent nerve-root injury, excessive fibrosis-pseudostenosis, inadequate decompression, abnormal psychology, meralgia paresthetica, painful bone- **graft** donor site, and accelerated proximal joint failure."

Katzman explained that instrumentation was guilty in two...  
...to avoid using allograft bone alone and try to restrict surgery to fewer than three **vertebral** levels.

"If distraction is necessary to widen an intervertebral foramina, this should begin at the L5-S1 level and progress to the next **cephalad** level sequentially in order to avoid instrumentation-induced spinal stenosis," the researchers advise.

"We suggest starting at the sacrum and working upward to prevent distraction of the adjacent **vertebra**."

"Inadequate decompression contributed to a high failure rate and can be avoided by proper preoperative..."

...DESCRIPTORS: Orthopedic **implants** --

13/3,K/24 (Item 24 from file: 149)  
DIALOG(R)File 149:TGG Health&Wellness DB(SM)  
(c) 2005 The Gale Group. All rts. reserv.  
02170786 SUPPLIER NUMBER: 99326179 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
**When is surgery appropriate for patients with low back pain?**  
Mooney, Vert  
The Journal of Musculoskeletal Medicine, 20, 3, 112(8)  
March,  
2003

PUBLICATION FORMAT: Magazine/Journal; Refereed ISSN: 0899-2517  
LANGUAGE: English RECORD TYPE: Fulltext TARGET AUDIENCE: Academic;  
Professional

WORD COUNT: 5349 LINE COUNT: 00473

... the stress fracture of the pars interarticularis but also continued forward displacement of the superior **vertebra** on the inferior **vertebra**. This spine condition is called spondylolisthesis.

If we consider failures of the anatomic lumbar spinal...most widely advocated is posterior lateral fusion.

In posterior lateral fusion, the lateral pedicle, the **facet joints**, the pars interarticularis, laminae, and transverse processes are freed of soft tissue and decorticated to...

...a lateral inter-muscular exposure on either side of the spinous processes. Usually, a bone **graft** from the pelvis is used.

During a single-level fusion procedure, blood loss is usually not excessive, and blood may not need to be replaced during surgery. When more significant blood loss occurs, blood aspirated during surgery can be passed...

...patient.

Because of the great healing potential inherent in youth, expectation of fusion across the **facet joints** and the transverse processes is high in young patients. Even though it is not possible...  
...returns to normal.

With innovations in internal fixation, direct repair of the

pseudarthrosis with bone **grafting** and internal fixation of just the pars interarticularis repair is now being done. The advantage...  
...the sacrum and in the pedicle of L4 and L5. For reduction of the L5 **vertebral** body, fusion to L4 is necessary. However, because patients treated by fusion without reduction (that...  
...migration of nuclear material to the periphery. Tears of the peripheral annulus attachment to the **vertebral** body also create greater stress on the fibers of the inner annulus, allowing tears to...relationships. Diminished nerve function in older persons is sometimes secondary to impingement by an arthritic **facet joint** or narrowness of the nerve canal or both, and additional removal of surrounding degenerative tissue...excision without fusion.

The most rational approach would be to remove the disk totally and **replace** it with a **substitute**. Although several designs of total disk replacements have been proposed and some clinical trials have been accomplished, considerable time will pass before disk **replacement** is a reliable clinical remedy. (13)

Here too different strategies are emerging. One is to **replace** the disk completely with a 3-piece metal and plastic interface--a technique conceptually similar to total hip or knee **replacement**. Another is to merely **replace** the center, nuclear portion of the disk with a polymer that swells when hydrated and...

...plates. Matching dowels or rectangles of bone are then impacted into this space. The bone **grafts**, which may be autogenous or cadaveric **grafts**, are mechanically matched to fit the recipient site.

More recently, metal spacers in the form...  
...have been used. The inner part of these fusion cages is filled with autogenous bone **graft**, which incorporates with the **vertebral** body above and below the excised disk space.

Bracing is generally used postoperatively. Diminished activity...  
...Recuperation takes 6 months before good roentgenographic evidence of living bone traversing from the superior **vertebral** body to the inferior **vertebral** body is visible.

Success with the anterior inter-	...osteogenic activity indicates fracture union unlikely)
Progressive forward slipping of <b>cephalad vertebral</b> body	> 50% slip with increasing sagittal posterior rotation of sacrum
	Anterior rounding of superior surface of caudal <b>vertebral</b> body
Problem	Procedure and considerations
Failure of stress fracture repair (spondyloysis)	Fusion (posterior lateral)
Progressive forward slipping of <b>cephalad vertebral</b> body	Fusion (usually in situ posteriorly; reduction is complex)

Table 3

Care for painful low back...correlates with symptoms.

More advanced disk deterioration creates reactive changes in the adjacent bone and **facet joints**; eventually, the degenerative process of the disk can be seen roentgenographically. No study has correlated...

22/3,K/15 (Item 15 from file: 149)  
DIALOG(R) File 149:TGG Health&Wellness DB(SM)  
(c) 2005 The Gale Group. All rts. reserv.  
01812426 SUPPLIER NUMBER: 53499382 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
**Variations in Posteroanterior Stiffness in the Thoracolumbar Spine:**  
**Preliminary Observations and Proposed Mechanisms.**  
Lee, Michael; Steven, Grant P; Crosbie, Jack; Higgs, Robin JED  
Physical Therapy, 78, 12, 1277(1)  
Dec,  
1998  
PUBLICATION FORMAT: Magazine/Journal; Refereed ISSN: 0031-9023  
LANGUAGE: English RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE:  
Professional  
WORD COUNT: 7462 LINE COUNT: 00659  
...AUTHOR ABSTRACT: small, but important, proportion (22% or less) of the  
variance in stiffness data at some **vertebral** levels was accounted for by  
the variables describing subject characteristics. Conclusion and  
Discussion. Posteroanterior stiffness...  
TEXT:  
...to which the PA response reflects the behavior of intervertebral  
joints adjacent to the target **vertebra** compared with more distal  
intervertebral joints, the rib cage, muscles, skin, and other tissues has  
...  
... that, when a vertical PA force was applied to the spinous process  
of the L3 **vertebra** of a prone subject, the force-displacement response  
comprised a nonlinear region followed by a...  
...memories of the responses of other subjects, as well as with the  
response at other **vertebral** levels in the patient being examined.(15)  
Both of these comparisons require an awareness of...  
...PA response reflects the intervertebral joint properties, especially at  
those joints immediately adjacent to the **vertebrae** to which the force is  
applied. Recent evidence, however, challenges this assumption.(6,9,10...  
...proportion (50%) of the variance in PA stiffness, with smaller  
proportions accounted for at other **vertebral** levels (41% at L4, 28% at  
L3, 7% at L2, and 0.4% at L1...  
...influence the PA response. Lee et al(11) have proposed that the movement  
of a **vertebra** in response to a lumbar PA force involves intervertebral  
displacements at many intervertebral joints, anterior...and the L5 spinous  
process was identified as a relatively small, deep spinous process  
immediately **cephalad** to the lumbosacral junction. The levels T1, T4, T7,  
T10, L1, L4, and S1 were...its standard configuration for the application  
of force to the spinous processes. The 5 selected **vertebral** levels (T4,  
T7, T10, L1, and L4) were chosen to indicate the trend of response...  
...force was applied in the sagittal plane at angles corresponding to the  
tilt of the **vertebrae** due to the average sagittal curve of the spine in  
the standing position.(20) The...  
...The angles used were 4.5 degrees from vertical (caudad) at L4, -12.5  
degrees ( **cephalad** ) at L1, -8.5 degrees ( **cephalad** ) at T10, 4.5 degrees  
(caudad) at T7, and 11.0 degrees (caudad) at T4...  
...variables to the measured responses. Systematic variation of PA  
force-displacement stiffness coefficients among the **vertebral** levels  
tested was examined using an analysis of variance (ANOVA). The contribution  
of anthropometric variables...  
...were performed, with the 5 dependent variables being the PA stiffness  
values at the 5 **vertebral** levels. Statistical tests were conducted using

an SPSS software program. ((sections)) A level of significance...  
...05 was used for all statistical tests.

#### Results

The variation of mean PA stiffness with **vertebral** location is shown in Figure 3. The mean PA stiffness was greatest at the L4...

...lowest mean stiffness (L1 level, 10.4 N/mm), the mean stiffness rose in a **cephalad** direction (11.6 N/mm at T10, 12.5 N/mm at T7), then fell...

...at T4 (12.2 N/mm). The ANOVA indicated that the mean stiffness varied between **vertebral** levels ( $F=4.35$ ,  $P=.003$ ). Post hoc analysis (Bonferroni) of pair-wise comparisons to...OMITTED)

The multiple-regression analyses showed that there were predictors of PA stiffness at 3 **vertebral** levels (L4, T10, and T7). In none of these cases, however, was a major proportion...

...of loading.

We propose that the pattern of PA stiffness that we observed among the **vertebral** levels tested is likely to be due to the nature of the support of the...

...thoracic spine is supported by the rib cage. The degree of support for the thoracic **vertebrae** from its attachments would be expected to depend on the **vertebral** level. Less support and thus lower PA stiffness would be expected in the upper thoracic...

...stiffness.

The ability of clinicians to detect the observed differences in mean PA stiffness between **vertebral** levels is not known. Previous research demonstrated that, when palpating linearly elastic springs, a difference adjacent lumbar **vertebral** levels (greater than 3.6 N/mm) could be designated as abnormal. In this context...

...the factors that may contribute to the variation of PA stiffness among subjects. At 3 **vertebral** levels (ie, L4, T10, and T7), there was a statistically significant predictor of PA stiffness...

...spine in determination of the PA response has been largely ignored by clinical textbooks (eg, **Vertebral** Manipulation by Maitland(4)).

Nonetheless, the following discussion of the role of these nonspinal variables...

...B, representing dorsal soft tissues, would be expected to exert a similar influence at all **vertebral** levels, depending on the cephalocaudal variation of skinfold thickness. The fact that iliac crest skinfold... variables we measured (from 78% to 100% of the between-subject variance at any given **vertebral** level) may be partly due to geometric properties (eg, tissue lengths, cross-sectional areas, orientations...

...the experimental data, introduced through uncertainty in measurements, inaccuracy in methods, and incorrect identification of **vertebral** locations, would have contributed variability to PA stiffness data that could not be accounted for...

...The data reported by Lee and Liversidge(8) for loads applied over the lower lumbar **vertebrae**, however, indicate that there is a high correlation ( $r=.94$ ) between slow and cyclic (0...

...Fig. 3 for the patterns of mean values). A similar relationship may exist at other **vertebral** levels, although Lee and Liversidge(8) found that the effect of loading frequency on PA stiffness was dependent on the **vertebral** level. Application of our data is also limited to moderate levels of applied force (ie...

...on Examination, Assessment, and Method. 4th ed. Edinburgh, Scotland: Churchill Livingstone; 1984.

(4) Maitland G. **Vertebral** Manipulation. 5th ed. London, England: Butterworth & Co (Publishers) Ltd; 1986.

(5) Lee M, Svensson NL...A, Lee M, Adams R. Posteroanterior stiffness in the lumbosacral spine: the correlation between adjacent **vertebral** levels. Spine. 1997;22:2724-2730.

(10) Lee M, Kelly DW, Steven GP. Lumbar spine manual therapy: effect of choice of target **vertebra** . In: Proceedings of the First Australasian Biomechanics Conference, Sydney, New South Wales, Australia. Sydney, New...  
...365-378.

(20) Stagnara P, De Mauroy JC, Dran G, et al. Reciprocal angulation of **vertebral** bodies in a sagittal plane: approach to references for the evaluation of kyphosis and lordosis...

File 5: Biosis Previews(R) 1969-2005/Aug W1  
 (c) 2005 BIOSIS  
 File 71: ELSEVIER BIOBASE 1994-2005/Jul W5  
 (c) 2005 Elsevier Science B.V.  
 File 73: EMBASE 1974-2005/Aug 12  
 (c) 2005 Elsevier Science B.V.  
 File 34: SciSearch(R) Cited Ref Sci 1990-2005/Aug W1  
 (c) 2005 Inst for Sci Info  
 File 434: SciSearch(R) Cited Ref Sci 1974-1989/Dec  
 (c) 1998 Inst for Sci Info  
 File 357: Derwent Biotech Res. 1982-2005/Aug W2  
 (c) 2005 Thomson Derwent & ISI  
 File 94: JICST-EPlus 1985-2005/Jun W3  
 (c) 2005 Japan Science and Tech Corp (JST)  
 File 95: TEME-Technology & Management 1989-2005/Jul W1  
 (c) 2005 FIZ TECHNIK  
 File 99: Wilson Appl. Sci & Tech Abs 1983-2005/Jul  
 (c) 2005 The HW Wilson Co.  
 File 65: Inside Conferences 1993-2005/Aug W1  
 (c) 2005 BLDSC all rts. reserv.  
 File 35: Dissertation Abs Online 1861-2005/Jul  
 (c) 2005 ProQuest Info&Learning  
 File 6: NTIS 1964-2005/Jul W5  
 (c) 2005 NTIS, Intl Cpyrght All Rights Res  
 File 8: Ei Compendex(R) 1970-2005/Jul W5  
 (c) 2005 Elsevier Eng. Info. Inc.

Set	Items	Description
S1	3759	(FACET OR ZYGAPOPHYSIAL) ( ) JOINT? ?
S2	3156	CEPHALAD? ?
S3	16499	CEPHALIC
S4	16470	S3 NOT S2
S5	128923	VERTEBRA? ?
S6	745912	PROSTHES?S OR IMPLANT?
S7	1983242	GRAFT??? OR TRANSPLANT?
S8	1703329	REPLACE? ? OR REPLACING OR REPLACEMENT OR SUBSTITUT?
S9	716910	ARTIFICIAL
S10	100151	PROSTHETIC? ?
S11	15	S4 AND (S1 OR S5) AND S6:S10
S12	13	RD (unique items)
S13	2	S12/2004:2005
S14	11	S12 NOT S13
S15	11	Sort S14/ALL/PY,A
S16	0	(S1 OR S5) AND S2:S3 AND (S10 NOT S6:S9)

15/6/6 (Item 6 from file: 94)  
 02619534 JICST ACCESSION NUMBER: 95A0955220 FILE SEGMENT: JICST-E  
**A Chronic Spinal Cord Compression Model in a Rat with a 354A Tumor., 1995**

15/6/10 (Item 10 from file: 94)  
 05042381 JICST ACCESSION NUMBER: 01A0955225 FILE SEGMENT: JICST-E  
**Endovascular Surgery in the Treatment of Multiple Occlusive Lesions of the Major Cephalic Arteries., 2001**

15/7/1 (Item 1 from file: 5)  
 DIALOG(R) File 5: Biosis Previews(R)  
 (c) 2005 BIOSIS. All rts. reserv.

0002762308 BIOSIS NO.: 198018001299  
**SURGERY OF THE AORTIC ARCH BRANCHES AND VERTEBRAL ARTERIES**  
AUTHOR: WYLIE E J (Reprint); EFFENEY D J  
AUTHOR ADDRESS: DEP SURG, UNIV CALIF, 350 PARNASSUS AVE, SAN FRANCISCO,  
CALIF 94117, USA\*\*USA  
JOURNAL: Surgical Clinics of North America 59 (4): p669-680 1979  
ISSN: 0039-6109  
DOCUMENT TYPE: Article  
RECORD TYPE: Citation  
LANGUAGE: ENGLISH

15/7/9 (Item 9 from file: 73)  
DIALOG(R) File 73:EMBASE  
(c) 2005 Elsevier Science B.V. All rts. reserv.  
11364202 EMBASE No: 2001378414  
**Minimally invasive endoscopic approach to the cervicothoracic junction  
for vertebral metastases: Report of two cases**  
Le Huec J.C.; Lesprit E.; Guibaud J.P.; Gangnet N.; Aunoble S.  
J.C. Le Huec, Spine Unit, Department of Orthopedics, CHU Pellegrin  
Tripode, 33076 Bordeaux Cedex France  
AUTHOR EMAIL: j-c.lehuc@chu-bordeaux.fr  
European Spine Journal ( EUR. SPINE J. ) (Germany) 2001, 10/5 (421-426)  
CODEN: ESJOE ISSN: 0940-6719  
DOCUMENT TYPE: Journal ; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH  
NUMBER OF REFERENCES: 20

The anterior cervicothoracic junction is difficult to expose and many techniques have previously been described. Most of them require an extensile exposure, which can lead to significant morbidity. The aim of this study is to present a less invasive approach, allowing the same exposure on the spine as a larger one. The approach begins with the same incision as the Smith-Robinson technique: a blunt dissection of the posterior face of the manubrium is performed with the finger. An endoscope is inserted through 10-mm trocars, one above the manubrium and the second through the second rib space. The upper mediastinal space is exposed; the dissection is performed on the left side, between the esophagus and trachea medially, between the innominate vein and brachio-**cephalic** artery distally, and between the left common carotid and internal jugular vein laterally. The recurrent nerve must be protected. Two patients with spine metastases underwent this new approach. A strut **graft** was fixed anteriorly after decompression of the spinal cord. Levels T1-T3 can be well exposed through this approach, allowing complete **vertebral** body removal at level T1 or T2. After body removal, the posterior longitudinal ligament is well exposed, allowing complete release of the spinal cord. The use of the endoscope is the key to providing a good view of the spine without an extensile exposure. This new approach is technically feasible. The exposure is sufficient for **vertebral** body resection and reconstruction by strut **graft**. The procedure is less aggressive and painful than sternotomy.

File 149:TGG Health&Wellness DB(SM) 1976-2005/Jul W5  
(c) 2005 The Gale Group  
File 16:Gale Group PROMT(R) 1990-2005/Aug 11  
(c) 2005 The Gale Group  
File 160:Gale Group PROMT(R) 1972-1989  
(c) 1999 The Gale Group  
File 9:Business & Industry(R) Jul/1994-2005/Aug 11  
(c) 2005 The Gale Group  
File 369:New Scientist 1994-2005/May W5  
(c) 2005 Reed Business Information Ltd.  
File 370:Science 1996-1999/Jul W3  
(c) 1999 AAAS  
File 129:PHIND(Archival) 1980-2005/Jul W5  
(c) 2005 T&F Informa UK Ltd  
File 135:NewsRx Weekly Reports 1995-2005/Aug W1  
(c) 2005 NewsRx  
File 98:General Sci Abs/Full-Text 1984-2004/Dec  
(c) 2005 The HW Wilson Co.  
File 148:Gale Group Trade & Industry DB 1976-2005/Aug 12  
(c)2005 The Gale Group  
File 481:DELPHES Eur Bus 95-2005/Jul W5  
(c) 2005 ACFCI & Chambre CommInd Paris  
File 441:ESPICOM Pharm&Med DEVICE NEWS 2005/Jul W2  
(c) 2005 ESPICOM Bus.Intell.

Set	Items	Description
S1	331	(FACET OR ZYGAPOPHYSIAL) ( )JOINT? ?
S2	267	CEPHALAD? ?
S3	657	CEPHALIC
S4	651	S3 NOT S2
S5	9644	VERTEBRA? ?
S6	126670	PROSTHES?S OR IMPLANT?
S7	158436	GRAFT??? OR TRANSPLANT?
S8	1576197	REPLACE? ? OR REPLACING OR REPLACEMENT OR SUBSTITUT?
S9	169185	ARTIFICIAL
S10	14496	PROSTHETIC? ?
S11	0	(S1 OR S5) (S) S4 (S) S6:S10
S12	6073	S10 NOT S6:S9
S13	20	(S1 OR S5) (S) S2
S14	17	RD (unique items)
S15	1	S14/2004:2005
S16	16	S14 NOT S15
S17	16	Sort S16/ALL/PD,A
S18	19	S13 NOT S3
S19	16	RD (unique items)
S20	15	S19 NOT S15
S21	15	Sort S20/ALL/PD,A

21/3,K/3 (Item 3 from file: 149)

DIALOG(R) File 149:TGG Health&Wellness DB(SM)

(c) 2005 The Gale Group. All rts. reserv.

01367705 SUPPLIER NUMBER: 12593870 (USE FORMAT 7 OR 9 FOR FULL TEXT)

**The management of chylothorax.**

Valentine, Vincent G.; Raffin, Thomas A.

Chest, v102, n2, p586(6)

August,

1992



PUBLICATION FORMAT: Magazine/Journal ISSN: 0012-3692 LANGUAGE: English  
RECORD TYPE: Fulltext TARGET AUDIENCE: Professional  
WORD COUNT: 3149 LINE COUNT: 00377

... the cisterna chyli, which is usually midline just anterior to the first or second lumbar **vertebra** (Fig 1). The course continues **cephalad** through the aortic hiatus into the posterior mediastinum to the right of midline between the...

...as a surgically important single structure, for elective ligation, between the twelfth and eighth thoracic **vertebrae** .[3] It usually crosses the midline between the sixth and fourth thoracic **vertebrae** behind the esophagus and enters the left posterior mediastinum. Here it lies inconspicuously behind the...

21/3,K/11 (Item 11 from file: 149)

DIALOG(R)File 149:TGG Health&Wellness DB(SM)

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01812426 SUPPLIER NUMBER: 53499382 (USE FORMAT 7 OR 9 FOR FULL TEXT)

**Variations in Posteroanterior Stiffness in the Thoracolumbar Spine:**

**Preliminary Observations and Proposed Mechanisms.**

Lee, Michael; Steven, Grant P; Crosbie, Jack; Higgs, Robin JED

Physical Therapy, 78, 12, 1277(1)

Dec,

1998

PUBLICATION FORMAT: Magazine/Journal; Refereed ISSN: 0031-9023

LANGUAGE: English RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE:

Professional

WORD COUNT: 7462 LINE COUNT: 00659

... its standard configuration for the application of force to the spinous processes. The 5 selected **vertebral** levels (T4, T7, T10, L1, and L4) were chosen to indicate the trend of response...

...force was applied in the sagittal plane at angles corresponding to the tilt of the **vertebrae** due to the average sagittal curve of the spine in the standing position. (20) The...

...The angles used were 4.5 degrees from vertical (caudad) at L4, -12.5 degrees ( **cephalad** ) at L1, -8.5 degrees ( **cephalad** ) at T10, 4.5 degrees (caudad) at T7, and 11.0 degrees (caudad) at T4...

...05 was used for all statistical tests.

#### Results

The variation of mean PA stiffness with **vertebral** location is shown in Figure 3. The mean PA stiffness was greatest at the L4...

...lowest mean stiffness (L1 level, 10.4 N/mm), the mean stiffness rose in a **cephalad** direction (11.6 N/mm at T10, 12.5 N/mm at T7), then fell...

...at T4 (12.2 N/mm). The ANOVA indicated that the mean stiffness varied between **vertebral** levels (F=4.35, P=.003). Post hoc analysis (Bonferroni) of pair-wise comparisons to...

### Foreign and international patents

File 350:Derwent WPIX 1963-2005/UD,UM &UP=200550

(c) 2005 Thomson Derwent

File 347:JAPIO Nov 1976-2005/Apr(Updated 050801)

(c) 2005 JPO & JAPIO

Set	Items	Description
S1	90	(FACET OR ZYGAPOPHYSIAL) ( ) JOINT? ?
S2	41	CEPHALAD? ?
S3	7543	VERTEBRA? ?
S4	155052	PROSTHES?S OR IMPLANT?
S5	93664	GRAFT??? OR TRANSPLANT?
S6	542371	REPLACE? ? OR REPLACING OR REPLACEMENT OR SUBSTITUT?
S7	85666	ARTIFICIAL
S8	512	CAUDAL
S9	21	S2 AND S4:S7
S10	15	(S1 OR S3) AND S9
S11	6	S9 NOT S10
S12	7	S1 AND S2 AND S3
S13	0	S12 NOT S9
S14	79	S8(S) S4:S7
S15	25	S14(S) (S1 OR S3)
S16	19	S15 NOT S9
S17	4	S1(S) S2(S) S3
S18	0	S17 NOT (S9 OR S15)

10/7/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2005 Thomson Derwent. All rts. reserv.

016890417 \*\*Image available\*\*

WPI Acc No: 2005-214701/200522

**Anterior spinal instrumentation method for treating spinal deformities, involves inserting cancellous screws into cephalad and caudal end vertebrae at anterior portion of convex side of deformity through spinal plates**

Patent Assignee: TEXAS SCOTTISH RITE HOSPITAL CRIPPLED (TEXA-N)

Inventor: ASHMAN R B; JOHNSTON C E; PIERCE W A; ZHANG H

Number of Countries: 108 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200523090	A2	20050317	WO 2004US28690	A	20040903	200522 B

Priority Applications (No Type Date): US 2003500187 P 20030904

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
-----------	------	--------	----------	--------------

WO 200523090	A2	E 31	A61B-000/00	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ  
CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID  
IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ  
NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ  
UA UG US UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG BW CH CY CZ DE DK EA EE ES FI FR  
GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL  
SZ TR TZ ZM ZW

Abstract (Basic): WO 200523090 A2

NOVELTY - Deformity of spine is corrected by compression, distraction, and/or derotation of a rod anterior system. Cancellous screws are inserted into cephalad and caudal end vertebrae and

their adjacent **vertebrae** at the anterior portion of convex side of deformity through spinal plates connected to a rod spinal instrumentation.

DETAILED DESCRIPTION - The two spinal plates on convex side of deformity are respectively attached to the **cephalad** and caudal end **vertebrae**. The rod anterior system is fixed on the posterior portion of the convex side of deformity. The first spinal plate is attached on the most **cephalad** end **vertebrae** and the second spinal plate is attached on the most caudal end **vertebrae** through the **vertebral** screws of the single rod anterior system.

USE - For treating spinal deformities.

ADVANTAGE - Allows two spinal plates at **cephalad** and caudal end **vertebrae** to be combined with a rod anterior system used for surgical management of thoracolumbar and lumbar scoliosis and other situations requiring spinal stabilization. Increases bone **implant** strength and stability. Enables easy application of **implants** to severely deformed spine. Allows easy adjustment of end **vertebrae** to avoid wedging and/or degeneration of disc caudal of last screw. Reduces operation time and simplifies operation steps. Reduces number of components and allows low profile accommodation of spinal deformity.

DESCRIPTION OF DRAWING(S) - The figure is the side view of the cancellous bone screw for use with rod anterior system.

pp; 31 DwgNo 3a/13

Derwent Class: P31

International Patent Class (Main): A61B-000/00

10/7/3 (Item 3 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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016798772 \*\*Image available\*\*

WPI Acc No: 2005-123051/200513

Prosthetic implant for replacing facet joint in spinal motion segment of human spinal column, comprises superior and inferior components, respectively implanted on lower and superior articular process of cephalad and caudad vertebrae

Patent Assignee: LEE C K (LEEC-I)

Inventor: LEE C K

Number of Countries: 108 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200509302	A2	20050203	WO 2004US23074	A	20040719	200513 B
US 20050043797	A1	20050224	US 2003487604	P	20030717	200515
			US 2004893243	A	20040719	

Priority Applications (No Type Date): US 2003487604 P 20030717; US 2004893243 A 20040719

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200509302 A2 E 58 A61F-002/44

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL

SZ TR TZ UG ZM ZW  
US 20050043797 A1 A61F-002/44 Provisional application US 2003487604  
Abstract (Basic): WO 200509302 A2

NOVELTY - A prosthetic **implant** for **replacing a facet joint** in a spinal motion segment of a human spinal column, comprises superior and inferior components each adapted to be **implanted** at a surgically prepared site on a lower articular process of a **cephalad vertebra**, and on a superior articular process of a caudad **vertebra** of the spinal motion segment, respectively.

DETAILED DESCRIPTION - A prosthetic **implant** for **replacing a facet joint** in a spinal motion segment (100) of a human spinal column, comprises superior and inferior components each adapted to be **implanted** at a surgically prepared site on a lower articular process of a **cephalad vertebra** (102), and on a superior articular process (114) of a caudad **vertebra** (142) of the spinal motion segment, respectively. The superior component comprises a conical **prosthesis** having a smooth conical external surface and a tapered internal cavity adapted to be **implanted** on a tapered resected portion of the inferior articular process (118) of the **cephalad vertebra**. The inferior component comprises a cup having a sidewall, the cup being adapted to receive the conical external surface of the superior component and a base adapted to be **implanted** at the surgically prepared site on the superior articular process.

An INDEPENDENT CLAIM is also included for an expandable sleeve for a pedicel (106) screw, having two ends; oval cylindrical portion adjacent the first end; radially outwardly bendable fingers extending axially from the cylindrical portion toward the second end; and tapered axial bore extending from the first end to the second end and tapering from the first end toward the second end.

USE - For **replacing a facet joint** in a spinal motion segment of a human spinal column (claimed).

ADVANTAGE - The design of the **facet joint prosthesis** provides a range of variable contact surface area, weight transmission, freedom/restriction of motion stability and weight bearing, to reproduce, as closely as possible, the function and motion of the natural face joint.

DESCRIPTION OF DRAWING(S) - The figure is a lateral view of the spinal motion segment with a **facet joint prosthesis**.

Spinal motion segment (100)  
**Cephalad vertebra** (102)  
pedicel (106)  
Superior articular process (114)  
Inferior articular process (118)  
**Caudad vertebra** (142)  
pp; 58 DwgNo 5/14

Derwent Class: D22; P32

International Patent Class (Main): A61F-002/44

10/7/5 (Item 5 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2005 Thomson Derwent. All rts. reserv.  
016645537 \*\*Image available\*\*  
WPI Acc No: 2004-804250/200479

**Fusion-promoting prosthetic device for treating diseases injury affecting spinal motion segment, has extending plate with caudal and cephalad**

**edges inserted in vertebral bodies, and transverse plates inserted in intervertebral space**

Patent Assignee: SDGI HOLDINGS INC (SDGI-N)

Inventor: EISERMANN L

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20040230307	A1	20041118	US 2003446963	P	20030212	200479 B
			US 2004752725	A	20040107	
			US 2004776754	A	20040211	

Priority Applications (No Type Date): US 2003446963 P 20030212; US

2004752725 A 20040107; US 2004776754 A 20040211

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20040230307	A1		8	A61F-002/44	Provisional application US 2003446963 Cont of application US 2004752725

Abstract (Basic): US 20040230307 A1

NOVELTY - A **prosthetic** device (20) has an extending plate with caudal and **cephalad** edges that are inserted in adjacent primary and secondary **vertebral** bodies (V1,V2), respectively. Transverse plates, connected to the extending plate, are inserted in an intervertebral space.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(A) a fusion-promoting spinal plating assembly; and

(B) a fusion promoting method.

USE - For treating diseases injury, malformation affecting spinal motion segment, disc tissue.

ADVANTAGE - Enhances bone growth by roughing sagittal plate before coating bone growth promoting substance. Eliminates preformed slot by forming slot through engagement of beveled edges with **vertebrae**.

DESCRIPTION OF DRAWING(S) - The figure shows the end view of the fusion-promoting prosthetic device.

Vascular structure (12)

Prosthetic device (20)

Primary and secondary **vertebral** bodies (V1,V2)

pp; 8 DwgNo 4b/5

Derwent Class: P32

International Patent Class (Main): A61F-002/44

10/7/8 (Item 8 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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016475322 \*\*Image available\*\*

WPI Acc No: 2004-633265/200461

**Occipital plating system for cervical fixation, has coupling unit that extends from plate and structured to medially and laterally constrain portion of connecting unit length positioned in passage**

Patent Assignee: BARKER B T (BARK-I); FAREY I (FARE-I); HEINZ E S (HEIN-I); SDGI HOLDINGS INC (SDGI-N)

Inventor: BARKER B T; FAREY I; HEINZ E S; BAKER B T; FARLY I

Number of Countries: 108 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20040153070	A1	20040805	US 2003444485	P	20030203	200461 B

US 2003486145 P 20030710  
US 2003704767 A 20031110  
WO 200469038 A2 20040819 WO 2004US3024 A 20040203 200461  
Priority Applications (No Type Date): US 2003704767 A 20031110; US  
2003444485 P 20030203; US 2003486145 P 20030710  
Patent Details:  
Patent No Kind Lan Pg Main IPC Filing Notes  
US 20040153070 A1 20 A61B-017/58 Provisional application US 2003444485  
Provisional application US 2003486145

WO 200469038 A2 E A61B-000/00  
Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ  
CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID  
IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ  
NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ  
UA UG US UZ VC VN YU ZA ZM ZW  
Designated States (Regional): AT BE BG BW CH CY CZ DE DK EA EE ES FI FR  
GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR  
TZ UG ZM ZW

Abstract (Basic): US 20040153070 A1

NOVELTY - The system (40) has a plate (42) with a profile for positioning along the medial nuchal line of an occiput (32). A coupling unit (46, 48) extends from the plate and the coupling unit forms a passage extending along a portion of the length of the plate. The coupling unit is structured to medially and laterally constrain a portion of a length of a connecting units (22, 24) positioned in a passage.

DETAILED DESCRIPTION - The plate has a length along the longitudinal axis between a **cephalad** end and a caudal end. An INDEPENDENT CLAIM is also included for a method for stabilizing the spine.

USE - Used for occipital cervical fixation e.g. fixation of cervical region of spine and bone **graft**.

ADVANTAGE - The connecting units are engaged in coupling units or positioned by the surgeon and hence it can be precontoured to fit the patient's anatomy, thereby contoured during surgery and provides a desired custom fit with the patient hence satisfying their needs.

DESCRIPTION OF DRAWING(S) - The drawing shows a midline occipital **vertebral** fixation system looking cephaladly.

Connecting units (22, 24)

Occiput (32)

Plating system (40)

Plate (42)

Coupling unit (46, 48)

pp; 20 DwgNo 1/18

Derwent Class: P31

International Patent Class (Main): A61B-000/00; A61B-017/58

10/7/10 (Item 10 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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016457981 \*\*Image available\*\*

WPI Acc No: 2004-615899/200459

**Fusion-promoting prosthetic device for fusing two bone segments, has two transverse plates connected to sagittally-extending plate, and adapted for complete insertion within intervertebral space**

Patent Assignee: SDGI HOLDINGS INC (SDGI-N)

Inventor: EISERMANN L

Number of Countries: 106 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200471346	A2	20040826	WO 2004US4109	A	20040212	200459 B

Priority Applications (No Type Date): US 2003430473 A 20030506; US 2003446963 P 20030212

Patent Details:

Patent No	Kind	Lañ Pg	Main IPC	Filing Notes
WO 200471346	A2	E 16	A61F-000/00	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

Abstract (Basic): WO 200471346 A2

NOVELTY - The device has two transverse plates connected to a sagittally-extending plate, and adapted for complete insertion within an intervertebral space (S). The sagittally-extending plate has a caudal edge adapted for complete insertion within a first **vertebral** body (V1), and a **cephalad** edge adapted for complete insertion within a second **vertebral** body (V2) adjacent the first **vertebral** body.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (a) Fusion-promoting spinal plating assembly; and
- (b) Method for promoting fusion in an intervertebral space defined between two adjacent **vertebral** bodies.

USE - For fusing two bone segments.

ADVANTAGE - Eliminates or reduces the need for supplemental plating external of the intervertebral space.

DESCRIPTION OF DRAWING(S) - The figure is a lateral view of a pair of adjacent **vertebral** bodies.

Vascular structure (12)  
Intervertebral space (S)  
First **vertebral** body (V1)  
Second **vertebral** body (V2)  
pp; 16 DwgNo 1/5

Derwent Class: P32

International Patent Class (Main): A61F-000/00

10/34/12 (Item 12 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015360196 \*\*Image available\*\*

WPI Acc No: 2003-421134/200339

**Vertebral interbody fusion instrument comprises self-centering distractors with disc space insertion tips**

Patent Assignee: SDGI HOLDINGS INC (SDGI-N)

Inventor: BURKUS K J; DUNCAN J P; RAY E F; DERIDDER S D; DORCHAK J D; MCGAHAN T V; BURKUS J K

Number of Countries: 102 Number of Patents: 005

Serial 10/615417

August 12, 2005

## Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200326514	A1	20030403	WO 2002US30861	A	20020927	200339 B
US 6743234	B2	20040601	US 99118793	P	19990204	200436
			US 2000498426	A	20000204	
			US 2001756492	A	20010108	
			US 2001965018	A	20010927	
EP 1432356	A1	20040630	EP 2002766392	A	20020927	200443
			WO 2002US30861	A	20020927	
AU 2002330130	A1	20030407	AU 2002330130	A	20020927	200461
JP 2005503860	W	20050210	WO 2002US30861	A	20020927	200511
			JP 2003530156	A	20020927	

Priority Applications (No Type Date): US 2001965018 A 20010927; US 99118793 P 19990204; US 2000498426 A 20000204; US 2001756492 A 20010108

## Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
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WO 200326514	A1 E	85	A61B-017/02	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW

US 6743234	B2		A61B-017/58	Provisional application US 99118793 CIP of application US 2000498426 CIP of application US 2001756492 CIP of patent US 6575981 CIP of patent US 6648895
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EP 1432356	A1 E		A61B-017/02	Based on patent WO 200326514
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Designated States (Regional): AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

AU 2002330130	A1		A61B-017/02	Based on patent WO 200326514
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JP 2005503860	W	113	A61B-017/56	Based on patent WO 200326514
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Abstract (Basic): WO 200326514 A1

NOVELTY - The instrument includes two distractors (350,380) comprising shafts that define distraction heights that extend from the distal ends of the shafts. The distractors have tips (356,386) that insert into the disc space and conform to the anatomical configuration of the disc space. The distractors are self-centering in the disc space both laterally and in the **cephalad** /caudal directions.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a surgical instrument assembly for distracting a spinal disc space.

USE - For separating disc space and subsequently inserting **implants** e.g. **vertebral** interbody fusion.

ADVANTAGE - The distractors better maintain their position after insertion. Subsequent procedures performed in the disc space based upon the position of the distractors are more symmetrical and more uniform between adjacent **vertebral** endplates

DESCRIPTION OF DRAWING(S) - The drawing shows the assembly of the distractors in a side-by-side relation.

Distractors (350,380)

Distractor tips (356,386)

pp; 85 DwgNo 25a/56

Derwent Class: P31; P32

International Patent Class (Main): A61B-017/02; A61B-017/56; A61B-017/58



International Patent Class (Additional): A61B-017/17; A61F-002/44

10/34/13 (Item 13 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2005 Thomson Derwent. All rts. reserv.  
014073411  
WPI Acc No: 2001-557624/200162

**Apparatus for providing therapy to damaged vertebral body in human spine, comprises unit for exposing anterior/posterior sacral positions of sacral vertebral body, bore forming unit and therapeutic procedure performing unit**

Patent Assignee: AXIAMED INC (AXIA-N); CRAGG A H (CRAG-I)

Inventor: CRAGG A H

Number of Countries: 095 Number of Patents: 007

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200160234	A2	20010823	WO 2001US4754	A	20010214	200162 B
AU 200138264	A	20010827	AU 200138264	A	20010214	200176
US 20010049527	A1	20011206	US 2000182748	P	20000216	200203
			US 2001782583	A	20010213	
EP 1257217	A2	20021120	EP 2001910681	A	20010214	200301
			WO 2001US4754	A	20010214	
US 6558390	B2	20030506	US 2000182748	P	20000216	200338
			US 2001782583	A	20010213	
US 20030195518	A1	20031016	US 2000182748	P	20000216	200369
			US 2001782583	A	20010213	
			US 2003430841	A	20030506	
JP 2004516855	W	20040610	JP 2001559335	A	20010214	200438
			WO 2001US4754	A	20010214	

Priority Applications (No Type Date): US 2001782583 A 20010213; US 2000182748 P 20000216; US 2003430841 A 20030506

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200160234	A2	E	109	A61B-000/00	
Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
AU 200138264	A				Based on patent WO 200160234
US 20010049527	A1			A61B-017/58	Provisional application US 2000182748
EP 1257217	A2	E		A61B-017/70	Based on patent WO 200160234
Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
US 6558390	B2			A61B-017/00	Provisional application US 2000182748
US 20030195518	A1			A61B-017/16	Provisional application US 2000182748
Cont of application US 2001782583					
Cont of patent US 6558390					
JP 2004516855	W		164	A61B-017/56	Based on patent WO 200160234

Abstract (Basic): WO 200160234 A2

NOVELTY - An apparatus for obtaining access to a series of adjacent vertebral bodies such as damaged intervertebral spinal discs within spine, comprises a unit for exposing anterior/posterior sacral positions of corresponding sacral vertebral body, bore forming unit

which is operable from exposed anterior/posterior sacral position, and therapeutic unit for **vertebral** body/spinal disc through trans-sacral axial bore.

DETAILED DESCRIPTION - The apparatus for obtaining access to a series of adjacent **vertebral** bodies located within spine, which are separated by, intact or damaged intervertebral spinal discs, comprises: a unit for exposing anterior or posterior sacral positions of sacral **vertebral** body, bore forming unit which is operable from exposed anterior or posterior sacral positions and a unit for performing therapeutic procedure of **vertebral** body or spinal disc, located within human spine, through a trans-sacral axial bore. The bore forming unit is operable from the exposed anterior sacral position for forming an anterior trans-sacral axial bore **cephalad**, and axially through or into a **cephalad vertebral** body and intervertebral spinal disc. The bore forming unit is alternately operable from the exposed posterior position for boring a curved posterior trans-sacral axial board **cephalad** and axially through caudal **vertebral** body and through or into **cephalad vertebral** body and intervertebral spinal disc. The posterior axial board has a bore curvature in the posterior-anterior plane of the spine.

An INDEPENDENT CLAIM is also included for treatment method of spine comprises:

(i) identifying anterior sacral position on the anterior surface of the sacrum or posterior sacral position on the posterior surface of the sacrum; and

(ii) forming a curved axial bore from the posterior sacral position or one of a curved or linear axial bore from the anterior sacral position through the sacrum, through or into at least one **vertebral** body **cephalad** to the sacrum, through or into a least one intervertebral spinal disc; and

(iii) performing a procedure using the bore.

USE - For treating spinal disorders (claimed) traumatic spinal injuries, disease process, aging process and congenital abnormalities that cause pain, reduce flexibility of the spine, decrease the load bearing capabilities of the spine, shorten the length of the spine and/or distort the normal curvature of the spine instrumentation/fusion (TASIF) axial bore, through **vertebral** spinal disc, by spinal surgery.

ADVANTAGE - The anterior or posterior axial board can be employed to remove **vertebral** board and/or spinal disc material to introduce bone growth material, other bio-materials, devices and instruments for completing the therapeutic procedures. The apparatus enables to form axial bore through **vertebral** bodies in general alignment with a visualized, trans-sacral anterior or posterior axial instrumentation/fusion (TASIF) line in a minimally invasive, low trauma, manner and to provide a therapy to the spine employing the axial bore.

pp; 109 DwgNo 0/42

#### Technology Focus:

TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Method: The procedure is a diagnostic or therapeutic procedure. The procedures comprises removing part of or an entire nucleus of an intervertebral spinal disc. The procedure comprises inserting a fixation device; introducing a bone growth facilitator; applying electrical stimulation to the spine; repairing a damaged **vertebral** body; augmenting an intervertebral spinal disc; **implanting** at least one radiation emitting **implant** to a selected site in relation to a sarcoma through

the bore; and the forming step comprises drilling. The bore extends caudally from the sacral position at least as far as the L4 vertebral body.

Derwent Class: B07; P31; P32; P34

International Patent Class (Main): A61B-000/00; A61B-017/00; A61B-017/16; A61B-017/56; A61B-017/58; A61B-017/70

International Patent Class (Additional): A61F-002/44; A61L-029/00; A61M-025/00; A61N-001/05

10/34/14 (Item 14 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014004859 \*\*Image available\*\*

WPI Acc No: 2001-489073/200153

Axial spinal implant has axial spinal implant body with curvature to enable insertion into curved axial bore through caudal axial bore opening and advancement in cephalad direction

Patent Assignee: AXIAMED INC (AXIA-N); CRAGG A H (CRAG-I); TRANS1 INC (TRAN-N)

Inventor: CRAGG A H

Number of Countries: 095 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200160270	A1	20010823	WO 2001US4610	A	20010214	200153 B
AU 200138205	A	20010827	AU 200138205	A	20010214	200176
EP 1265541	A1	20021218	EP 2001910614	A	20010214	200301
			WO 2001US4610	A	20010214	
US 6558386	B1	20030506	US 2000182748	P	20000216	200338
			US 2000684820	A	20001010	
JP 2003522588	W	20030729	JP 2001559369	A	20010214	200358
			WO 2001US4610	A	20010214	
US 20030204189	A1	20031030	US 2000182748	P	20000216	200372
			US 2000684820	A	20001010	
			US 2003430751	A	20030508	

Priority Applications (No Type Date): US 2000684820 A 20001010; US 2000182748 P 20000216; US 2003430751 A 20030508

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
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WO 200160270	A1 E	62	A61B-017/70	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200138205	A			Based on patent WO 200160270
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EP 1265541	A1 E		A61B-017/70	Based on patent WO 200160270
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Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

US 6558386	B1		A61B-017/70	Provisional application US 2000182748
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JP 2003522588	W	77	A61F-002/44	Based on patent WO 200160270
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US 20030204189	A1		A61B-017/70	Provisional application US 2000182748
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Cont of application US 2000684820

Cont of patent US 6558386

Abstract (Basic): WO 200160270 A1

NOVELTY - The spinal **implant** is formed of a bio-compatible material having an axial spinal **implant** body extending between a **cephalad implant body end** and a **caudal implant body end**. The axial spinal **implant** body has a curvature to enable insertion into the curved axial bore through the caudal axial bore opening and advancement in the **cephalad** direction to seat a caudal axial spinal **implant** body portion in the **cephalad** bore end and to dispose a caudal axial spinal **implant** body portion in at least a portion of the axial bore traversing the caudal **vertebral** body.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a method of treating a series of adjacent **vertebrae**.

USE - For fusing and/or stabilizing spinal **vertebrae**.

ADVANTAGE - Minimally invasive and low trauma.

DESCRIPTION OF DRAWING(S) - The drawing shows the location of the curved interior spinal **implant**.

pp; 62 DwgNo 19/25

Derwent Class: P31; P32; P34

International Patent Class (Main): A61B-017/70; A61F-002/44

International Patent Class (Additional): A61B-017/56; A61L-027/00

10/34/15 (Item 15 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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011073829 \*\*Image available\*\*

WPI Acc No: 1997-051753/199705

System for anterior fixation of spine - includes performing thoraco-abdominal exposure of spine segments, implanting fusion devices into cephalad and caudal disc spaces, and engaging attachment member

Patent Assignee: DANEK MEDICAL INC (DANE-N); SDGI HOLDING INC (SDGI-N);

SDGI HOLDINGS INC (SDGI-N); MICHELSON G K (MICH-I); BOYD L M (BOYD-I)

Inventor: BOYD L M; MICHELSON G K

Number of Countries: 026 Number of Patents: 013

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9639973	A1	19961219	WO 96US8039	A	19960530	199705 B
AU 9660263	A	19961230	AU 9660263	A	19960530	199716
ZA 9604849	A	19970730	ZA 964849	A	19960607	199735
US 5683391	A	19971104	US 95482447	A	19950607	199750
EP 932367	A1	19990804	EP 96917863	A	19960530	199935
			WO 96US8039	A	19960530	
JP 11508781	W	19990803	WO 96US8039	A	19960530	199941
			JP 97500854	A	19960530	
TW 375523	A	19991201	TW 96106423	A	19960530	200042
US 6190388	B1	20010220	US 95482447	A	19950607	200112
			US 97790605	A	19970129	
			US 97962884	A	19971110	
			US 98159292	A	19980923	
			US 2000487167	A	20000119	
US 37161	E	20010501	US 95482447	A	19950607	200126
			US 2000488634	A	20000120	
EP 932367	B1	20031119	EP 96917863	A	19960530	200377
			WO 96US8039	A	19960530	
DE 69630817	E	20031224	DE 96630817	A	19960530	200408
			EP 96917863	A	19960530	
			WO 96US8039	A	19960530	

ES 2210372 T3 20040701 EP 96917863 A 19960530 200444  
DE 69630817 T8 20041216 DE 96630817 A 19960530 200482  
WO 96US8039 A 19960530

Priority Applications (No Type Date): US 95482447 A 19950607; US 97790605 A  
19970129; US 97962884 A 19971110; US 98159292 A 19980923; US 2000487167 A  
20000119; US 2000488634 A 20000120

Cited Patents: US 4987892; US 5015247

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9639973 A1 E 30 A61B-017/70

Designated States (National): AU CA CN JP KR

Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LU MC  
NL PT SE

AU 9660263 A A61B-017/70 Based on patent WO 9639973

ZA 9604849 A 30 A61F-000/00

US 5683391 A 13 A61B-017/70

EP 932367 A1 E A61B-017/70 Based on patent WO 9639973

Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LI LU  
MC NL PT SE

JP 11508781 W 27 A61B-017/58 Based on patent WO 9639973

TW 375523 A A61F-002/44

US 6190388 B1 A61B-017/70 Div ex application US 95482447  
Cont of application US 97790605  
Cont of application US 97962884  
Cont of application US 98159292  
Div ex patent US 5683391

US 37161 E A61B-017/70 Reissue of patent US 5683391

EP 932367 B1 E A61B-017/70 Based on patent WO 9639973

Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LI LU  
MC NL PT SE

DE 69630817 E A61B-017/70 Based on patent EP 932367  
Based on patent WO 9639973

ES 2210372 T3 A61B-017/70 Based on patent EP 932367

DE 69630817 T8 A61B-017/70 Based on patent WO 9639973

Abstract (Basic): WO 9639973 A

The system for anterior fixation of the spine utilises a cylindrical **implant** engaged in the intra-disc space at the **cephalad** and caudal ends of the construct. The **implants** are cylindrical fusion devices (10) filled with bone material to promote ingrowth and fusion of the disc space.

An attachment member is connected to each of the fusion devices, and bone screws (30) having similar attachment members (33) are engaged in the **vertebral** bodies of the intermediate **vertebrae**. A spinal rod (50) is connected to each of the attachment members using an eyebolt assembly (53). In a further method, a revision of the construct is achieved by removing the fusion devices. Each fusion device is engaged by an elongated guide member over which a cylindrical trephine is advanced. The trephine has an ID larger than the dia. of the fusion **implant**.

USE/ADVANTAGE - The spinal anterior fixation system is suitable for the addition or removal of components by way of revision without sacrificing either an existing construct, or eliminating the possibility of **implanting** a new, more stable construct.

Dwg.3/7

Abstract (Equivalent): US 5683391 A

A method for anterior fixation of a spine, comprising the steps of:

performing a thoracoabdominal exposure of the segments of the spine to be instrumented with fixation implants ;  
implanting a fusion device into at least one of the cephalad and caudal disc spaces;  
engaging an attachment member to each fusion device, the attachment member being configured for attachment to an elongated member to extend along the spine; and  
fixing the elongated member to each attachment member.  
Dwg.2/7

Derwent Class: P31; P32

International Patent Class (Main): A61B-017/58; A61B-017/70; A61F-000/00; A61F-002/44

11/26, TI/5 (Item 5 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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009149019

WPI Acc No: 1992-276458/199233

Asymmetrical femoral condyle total knee arthroplasty prosthesis - has lateral femoral condyle recessed more into femur and is sloped cephalad and posterior when implanted on femur when compared with medial femoral condyle

11/7/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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016145081 \*\*Image available\*\*

WPI Acc No: 2004-302957/200428

Medical implant device for use in laminoplasty surgery has hollow elongate body having posterior and opposed perforation-free anterior side adjacent to cephalad and caudal sides, and perforations formed in each of the sides

Patent Assignee: DEPUY ACROMED INC (DEPU-N); CHUNG J (CHUN-I); MICHIELLI M C (MICH-I); DEPUY SPINE INC (DEPU-N)

Inventor: CHUNG J; MICHIELLI M C

Number of Countries: 036 Number of Patents: 007

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6712852	B1	20040330	US 2002260329	A	20020930	200428 B
CA 2440795	A1	20040330	CA 2440795	A	20030912	200428
EP 1402830	A1	20040331	EP 2003255597	A	20030909	200428
JP 2004121851	A	20040422	JP 2003338236	A	20030929	200428
US 20040064184	A1	20040401	US 2002260329	A	20020930	200428
KR 2004028562	A	20040403	KR 200367283	A	20030929	200451
AU 2003244033	A1	20040422	AU 2003244033	A	20030901	200457

Priority Applications (No Type Date): US 2002260329 A 20020930

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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US 6712852	B1		14	A61F-002/44	
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CA 2440795	A1 E			A61F-002/44	
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EP 1402830	A1 E			A61B-017/70	
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Designated States (Regional): AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

JP 2004121851	A		15	A61F-002/44	
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US 20040064184	A1			A61F-002/44	
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KR 2004028562	A			A61F-002/44	
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AU 2003244033	A1			A61F-002/44	
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Serial 10/615417

August 12, 2005

Abstract (Basic): US 6712852 B1

**NOVELTY** - Medical **implant** device comprises a hollow elongate body having a longitudinal axis, opposed **cephalad** and caudal sides (12, 14), a posterior side (16) and an opposed perforation-free anterior side (18) adjacent to the **cephalad** and caudal sides; and perforations (26) formed in each of the **cephalad**, caudal, and posterior sides. The **cephalad**, caudal, posterior, and anterior sides define an inner lumen having opposed two ends (22, 24).

**USE** - The medical **implant** device is used in spinal surgery, particularly in laminoplasty surgery.

**ADVANTAGE** - The inventive medical **implant** device effectively maintains and stabilizes the position of the lamina after laminoplasty surgery. It can be easily and safely **implanted**, allows for permanent bony incorporation when used with bone growth promoting materials, allows for muscle re-attachment, and restores the natural dynamics of the cervical spine.

**DESCRIPTION OF DRAWING(S)** - The figure is an anterior- **cephalad** perspective view of an **implant**.

**Cephalad** and caudal sides (12, 14)

Posterior side (16)

Anterior side (18)

Two ends (22, 24)

Perforations (26)

pp; 14 DwgNo 1/8

Derwent Class: A96; D22; P31; P32; P34

International Patent Class (Main): A61B-017/70; A61F-002/44

International Patent Class (Additional): A61B-017/58; A61F-002/28;

A61L-027/00; A61L-027/04; A61L-027/10; A61L-027/18

11/7/3 (Item 3 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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013760468 \*\*Image available\*\*

WPI Acc No: 2001-244680/200125

**Support device for supporting a graft assembly within a vessel, has securing assembly for fixing connecting assembly to proximal end of graft assembly which is attached to vessel wall**

Patent Assignee: EVA CORP (EVAE-N)

Inventor: TANNER H; TANNER H M; TROUT H H

Number of Countries: 021 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200119286	A1	20010322	WO 2000US25307	A	20000915	200125 B
US 6409757	B1	20020625	US 99396513	A	19990915	200246
EP 1231870	A1	20020821	EP 2000963498	A	20000915	200262
			WO 2000US25307	A	20000915	
JP 2003509113	W	20030311	WO 2000US25307	A	20000915	200319
			JP 2001522925	A	20000915	

Priority Applications (No Type Date): US 99396513 A 19990915

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200119286 A1 E 19 A61F-002/06

Designated States (National): JP

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU

MC NL PT SE

Serial 10/615417

August 12, 2005

US 6409757 B1 A61F-002/06

EP 1231870 A1 E A61F-002/06 Based on patent WO 200119286

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI  
LU MC NL PT SE

JP 2003509113 W 24 A61B-017/00 Based on patent WO 200119286

Abstract (Basic): WO 200119286 A1

NOVELTY - The support device (10) has an attachment assembly for fixing a **graft** assembly to a vessel wall. A connecting assembly couples the attachment assembly to the proximal end of the **graft** assembly, in which the attachment assembly is spaced from the proximal end of the **graft** assembly. A securing assembly fixes the connecting assembly to the proximal end of the **graft** assembly.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the **graft** repair system for use in the repair of aneurysm within a vessel.

USE - For supporting a **graft** assembly during repair of abdominal aortic aneurysm and preventing migration of **graft** assembly within abdominal aorta.

ADVANTAGE - Prevents **graft** migration in a **cephalad** /caudad direction within the vessel. Provides additional securement points for securing **graft** assembly to the vessel wall. Reduces impact of vessel expansion on the **graft** assembly when located within the vessel. Prevents impeding blood flow anteriorly or towards the intestine, and posteriorly or towards the spine. Has one attachment assembly capable of being secured within thoracic or suprarenal aorta. Does not block blood flow to and from renal arteries. Made of biocompatible material.

DESCRIPTION OF DRAWING(S) - The figure is a schematic view of a **graft** repair system with the support device positioned within a vessel.

Support device (10)

pp; 19 DwgNo 7/9

Derwent Class: P31; P32

International Patent Class (Main): A61B-017/00; A61F-002/06

16/3,K/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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017154213 \*\*Image available\*\*

WPI Acc No: 2005-478558/200548

Related WPI Acc No: 2005-478555; 2005-478557; 2005-478559

XRPX Acc No: N05-389647

Artificial **spinal joint for coupling between superior and inferior vertebrae**, has **rostral and caudal bridges that are coupled between respective rostral and caudal anterior components and posterior joint components**

Patent Assignee: SDGI HOLDINGS INC (SDGI-N)

Inventor: ALLARD R; HODGES S D; HUMPHREYS S C; PETERMAN M M

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20050154465	A1	20050714	US 2004534960	P	20040109	200548 B
			US 200531780	A	20050107	

Priority Applications (No Type Date): US 2004534960 P 20040109; US

200531780 A 20050107

Patent Details:



Patent No Kind Lan Pg Main IPC Filing Notes  
US 20050154465 A1 21 A61F-002/44 Provisional application US 2004534960

16/3,K/2 (Item 2 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2005 Thomson Derwent. All rts. reserv.  
017154212 \*\*Image available\*\*  
WPI Acc No: 2005-478557/200548  
Related WPI Acc No: 2005-478555; 2005-478558; 2005-478559  
XRPX Acc No: N05-389646

Artificial vertebral joint for interposition between superior  
vertebra and inferior vertebra , has spacer is interposed between  
rostral and caudal joint components that are engaged with respective  
endplates of superior and inferior vertebrae

Patent Assignee: SDGI HOLDINGS INC (SDGI-N)  
Inventor: EISERMANN L G; HODGES S D; HUMPHREYS S C; PETERMAN M M  
Number of Countries: 001 Number of Patents: 001  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20050154464	A1	20050714	US 2004534960	P	20040109	200548 B
			US 200531700	A	20050107	

Priority Applications (No Type Date): US 2004534960 P 20040109; US  
200531700 A 20050107

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
US 20050154464 A1 19 A61F-002/44 Provisional application US 2004534960

16/3,K/3 (Item 3 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2005 Thomson Derwent. All rts. reserv.  
016588974 \*\*Image available\*\*  
WPI Acc No: 2004-747709/200473  
XRAM Acc No: C04-262684  
XRPX Acc No: N04-590749

Intervertebral disc replacement prosthesis comprises chamber that can be  
inflated to conform to various intervertebral spaces

Patent Assignee: SUDDABY L (SUDD-I)  
Inventor: SUDDABY L  
Number of Countries: 108 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20040215342	A1	20041028	US 2003420803	A	20030423	200473 B
WO 200493723	A2	20041104	WO 2004US10961	A	20040422	200473

Priority Applications (No Type Date): US 2003420803 A 20030423

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
US 20040215342 A1 13 A61F-002/44  
WO 200493723 A2 E A61F-000/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ  
CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID  
IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ  
NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ  
UA UG US UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG BW CH CY CZ DE DK EA EE ES FI FR

GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PL PT RO SD SE SI SK SL SZ  
TR TZ UG ZM ZW

Abstract (Basic):

Technology Focus:

... Preferred Component: The **prosthesis** further comprises a pair of end plates on opposite sides of the chamber, each having a convex surface adapted to engage a respective cranial or **caudal** surface of neighboring **vertebrae**. Each of the end plates has projections or corrugations for engaging the surfaces to prevent...

16/3,K/4 (Item 4 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2005 Thomson Derwent. All rts. reserv.

016464964 \*\*Image available\*\*

WPI Acc No: 2004-622888/200460

XRPX Acc No: N04-492360

**Method of frontal spondylosyndesis in cases of kyphosises in children**

Patent Assignee: ST PETERSBURG PHYTOZIOPULMONOLOGY INST (SPET-R)

Inventor: EVSEEV V A; MUSHKIN A YU; PERSHIN A A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
RU 2234876	C2	20040827	RU 2002120846	A	20020730	200460 B

Priority Applications (No Type Date): RU 2002120846 A 20020730

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
RU 2234876	C2			A61B-017/56	

Abstract (Basic):

... diseases in children, comprises incorporating a profiled cortical allotransplant with ventral protuberance between bodies of **vertebra** to be blocked. Ventral protuberance has saddle-shaped recesses on its cranial and **caudal** surfaces, which serve, during reclination of kyphosis, for the incorporation of **transplant** between anteroinferior surface of the superior and anterosuperior surface of the inferior **vertebras** to be blocked and is centered maximally precisely.

16/3,K/5 (Item 5 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2005 Thomson Derwent. All rts. reserv.

015692234 \*\*Image available\*\*

WPI Acc No: 2003-754423/200371

XRPX Acc No: N03-604432

**Method for modeling spondylodesis**

Patent Assignee: CHITA MED ACAD (CHIT-R)

Inventor: GUBIN A V; SAVELEV V I; ULRIKH EH V

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
RU 2212060	C2	20030910	RU 2001126977	A	20010928	200371 B

Priority Applications (No Type Date): RU 2001126977 A 20010928

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
RU 2212060	C2			G09B-023/28	

Abstract (Basic):

... One should perform access to **vertebral** column of experimental animal from dorsal surface of its tail. Bottom is formed for **implant** to install it between the 3d and 4th **caudal vertebrae**. **Implant** is fixed by fixing **implant** -adjacent **vertebrae** with two **vertebral** fixing elements to direct then cross-sectionally through the centers of **vertebral** bodies mentioned at the angle of 40-50 deg. towards frontal axis coming through the center of **vertebral** body. One should conduct external rigid fixation of free end of every **vertebral** fixing element with fixing device designed as straight correct hollow hexagonal prism four mutually parallel lateral edges of which have not less than two pairs of mutually coaxial channels for **vertebral** fixing elements; axes of every of them cross central axis of prism and longitudinal axis ...

...the given pair are situated. The present method enables to increase reliability in evaluating **implant** 's properties, exclude possibility for lesions of blood supply sources and simplify interference technique.

16/3,K/6 (Item 6 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2005 Thomson Derwent. All rts. reserv.

015070853 \*\*Image available\*\*

WPI Acc No: 2003-131371/200313

XRPX Acc No: N03-104320

**Prosthetic vertebral disc has springs inserted between cranial and caudal disc with protective sleeve**

Patent Assignee: FEHLING INSTR GMBH (FEHL-N); FEHLING G (FEHL-I)

Inventor: FEHLING G

Number of Countries: 028 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1273276	A2	20030108	EP 200210894	A	20020516	200313 B
DE 10132588	A1	20030123	DE 10132588	A	20010705	200315
JP 2003024353	A	20030128	JP 2002167003	A	20020607	200318
US 20030009223	A1	20030109	US 2002180439	A	20020626	200324
DE 10132588	C2	20030522	DE 10132588	A	20010705	200336
US 6770094	B2	20040803	US 2002180439	A	20020626	200451

Priority Applications (No Type Date): DE 10132588 A 20010705

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 1273276	A2	G	6	A61F-002/44	
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Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT

LI LT LU LV MC MK NL PT RO SE SI TR

DE 10132588	A1			A61F-002/44	
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JP 2003024353	A		4	A61F-002/44	
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US 20030009223	A1			A61F-002/44	
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DE 10132588	C2			A61F-002/44	
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US 6770094	B2			A61F-002/44	
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16/3,K/7 (Item 7 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2005 Thomson Derwent. All rts. reserv.

014696141 \*\*Image available\*\*

WPI Acc No: 2002-516845/200255  
XRPX Acc No: N02-408862

**Corporodesis method for treating vertebral column deformity in patients possessing skeleton system diseases**

Patent Assignee: CHILDREN'S ORTHOPAEDICS RES INST (CHIL-R); ST PETERSBURG POST-DIPLOMA EDUCATIONAL (SPET-R)

Inventor: AFANASEV A P; POZDNIKIN YU I

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
RU 2182472	C2	20020520	RU 99108926	A	19990429	200255 B

Priority Applications (No Type Date): RU 99108926 A 19990429

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
RU 2182472	C2			A61B-017/56	

Abstract (Basic):

... Method involves intracorporally creating two canals shifted relative to each other in **caudal** and cranial direction and overlapping in length at the top of deformity after accessing **vertebral** bodies and carrying out diskectomy. Rod-like bone **transplants** are placed into the canals. One bone **transplant** is introduced into the canal built in bodies of several superior **vertebrae** and another one is introduced into the canal built in bodies of several inferior **vertebrae**. Interbody spaces are filled with bone autografts like ballast.

16/3,K/8 (Item 8 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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012786630

WPI Acc No: 1999-592857/199951

XRAM Acc No: C99-173263

**Assessing ischemic wound healing therapeutics, using new model of cutaneous ischemia**

Patent Assignee: ETHICON INC (ETHI )

Inventor: GRITSUS V; IARKOWSKI L; NICIPORCIUKAS C; WARD J; NICIPORCIUKAS M C

Number of Countries: 028 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 951912	A2	19991027	EP 99301002	A	19990211	199951 B
CA 2261255	A1	19990813	CA 2261255	A	19990208	200004
JP 11308941	A	19991109	JP 9935008	A	19990212	200004
US 6250306	B1	20010626	US 9874641	P	19980213	200138
			US 99248668	A	19990211	
EP 951912	B1	20031001	EP 99301002	A	19990211	200365
DE 69911679	E	20031106	DE 611679	A	19990211	200381
			EP 99301002	A	19990211	

Priority Applications (No Type Date): US 9874641 P 19980213; US 99248668 A 19990211

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 951912	A2	E	22	A61K-049/00	

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

Serial 10/615417

August 12, 2005

CA 2261255 A1 E A01K-067/027  
 JP 11308941 A 11 A01K-067/027  
 US 6250306 B1 A61B-017/00 Provisional application US 9874641  
 EP 951912 B1 E A61K-049/00

Designated States (Regional): AT BE CH DE FR GB IE LI LU NL SE  
 DE 69911679 E A61K-049/00 Based on patent EP 951912

## Extension Abstract:

... raising the skin between 10 cm long incisions, placed 2 cm either side of the **vertebrae**. The subcutaneous tissue was bluntly dissected, preserving the base at the iliac crest and the...  
 ...The frame was formed using standard wire bending kit and sterilized by autoclaving prior to **implantation**. The standardized design of the frame allowed development of reproducible amount of force along the...  
 ...the stent were brought together and secured with 3/0 prolene suture. The cranial and **caudal** ends of the framework were secured to the underlying muscle with 3/0 prolene sutures...

16/3,K/9 (Item 9 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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012178508 \*\*Image available\*\*

WPI Acc No: 1998-595419/199851

XRPX Acc No: N99-139555

**Spinal column prosthesis for insertion into intervertebral gao**

Patent Assignee: FUSS F K (FUSS-I); SABITZER R J (SABI-I)

Inventor: FUSS F K; SABITZER R J

Number of Countries: 025 Number of Patents: 005

## Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
AT 9701448	A	19981115	AT 971448	A	19970828	199851 B
WO 9911203	A1	19990311	WO 98AT201	A	19980826	199917
AT 405237	B	19990515	AT 971448	A	19970828	199924
AU 9889636	A	19990322	AU 9889636	A	19980826	199931
EP 1009339	A1	20000621	EP 98941133	A	19980826	200033
			WO 98AT201	A	19980826	

Priority Applications (No Type Date): AT 971448 A 19970828

## Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
AT 9701448	A	.	1	A61F-002/44	
WO 9911203	A1	G	21	A61F-002/44	

Designated States (National): AU BR CA JP KR US

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU

MC NL PT SE

AT 405237 B A61F-002/44 Previous Publ. patent AT 9701448

AU 9889636 A A61F-002/44 Based on patent WO 9911203

EP 1009339 A1 G A61F-002/44 Based on patent WO 9911203

Designated States (Regional): AT BE CH DE ES FI FR GB IE IT LI NL SE

## Abstract (Basic):

... The **prosthesis** (6) is movable in relation to the cranial **vertebral** body (1) and by means of anchoring and connecting devices on its under side is immovably connected with the **caudal vertebral** body (3). The rotation axis (7) locates between the adjacent **vertebral** bodies (1, 3) with forward and backward bending in the **caudal vertebral** body.

16/3,K/10 (Item 10 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2005 Thomson Derwent. All rts. reserv.

010464351 \*\*Image available\*\*

WPI Acc No: 1995-365670/199547

XRPX Acc No: N95-270596

Vertebral body prosthesis for replacing vertebral body in spine of human being - includes cephalic component having horizontally disposed member with upper surface for engaging underside of upper vertebral body and caudal component having horizontally disposed member with lower surface for engaging lower vertebral body

Patent Assignee: RAMIREZ JIMENEZ J J (JIME-I)

Inventor: RAMIREZ JIMENEZ J J

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5458641	A	19951017	US 93117619	A	19930908	199547 B

Priority Applications (No Type Date): US 93117619 A 19930908

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 5458641	A	9	A61F-002/44	

...Abstract (Basic): The **prosthesis** includes **cephalic** and **caudal components** with a separating setscrew between. The **cephalic** component includes a generally horizontal member having an upper porous, water-permeable surface complementary shaped to the underside of the adjacent **vertebral** body. There is a securement element upstanding along one side for receiving screws to secure the cephalic component to the upper **vertebral** body and a depending guide element...

...The lower **caudal** component includes a horizontally disposed member having a porous, water-permeable under-surface complementary shaped to the upper surface of the lower adjacent **vertebral** body. There is a depending securement element along one side for receiving screws to secure the **caudal** component to the lower **vertebral** body and an upstanding guide element for engaging the depending guide element of the cephalic...

...components and is adjustable to adjustably space the components relative to one another whereby a **vertebral** body **prosthesis** is formed...

16/3,K/11 (Item 11 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2005 Thomson Derwent. All rts. reserv.

008935939

WPI Acc No: 1992-063208/199208

XRPX Acc No: N92-047378

**Vertebral column posterior ligament plastic surgery - by surgery of ligament with allo-tendon**

Patent Assignee: LATV TRAUMA-ORTHOPA (LATR-R)

Inventor: KANEPS D K; RUKS V R

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
SU 1651877	A	19910530				199208 B

Priority Applications (No Type Date): SU 4338172 A 19871202

...Abstract (Basic): The interspinous and supraspinous ligaments are

restored with the use of **implants**. Surgery of the yellow ligament is performed using allo-tendon. One end of the allo...  
...a wire conductor. Then the allo-tendon is taken around the spinous process of the **vertebra caudal** to the level where the decompression operation has been performed and fixed to the cranially positioned **vertebra** by the capron thread. Then the outer edges of the allo-tendon are flattened out...

16/3,K/12 (Item 12 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2005 Thomson Derwent. All rts. reserv.  
008559696  
WPI Acc No: 1991-063731/199109  
XRPX Acc No: N91-049173

**Thoracolumbar anterior spondylodesis in children - by forming canal of complex form at acute angle in body of vertebra**  
Patent Assignee: UKHANOV N YU (UKHA-I)  
Inventor: UKHANOV N Y U  
Number of Countries: 001 Number of Patents: 001  
Patent Family:  
Patent No Kind Date Applicat No Kind Date Week  
SU 1572578 A 19900623 SU 4287405 A 19870720 199109 B  
Priority Applications (No Type Date): SU 4287405 A 19870720  
...Abstract (Basic): spondylodesis method in children, a complex canal is made at an acute angle in the **vertebra** body, and spondylodesis performed with a complex **transplant**, with base wider than the **vertebra** joined at an angle to a ventral projection in the middle, and stops with projections on the outer edge of the base on its cranial and **caudal** facets...

16/3,K/13 (Item 13 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2005 Thomson Derwent. All rts. reserv.  
004713917  
WPI Acc No: 1986-217259/198633  
XRPX Acc No: N86-162030

**Anterior spondylodesis - transplant should correspond in length to intervertebral diastasis during relining**  
Patent Assignee: LENGD PHTHISIOPULMO (LEPH-R)  
Inventor: KOVALENKO K N; UKHANOV N Y U  
Number of Countries: 001 Number of Patents: 001  
Patent Family:  
Patent No Kind Date Applicat No Kind Date Week  
SU 1202569 A 19860107 SU 3758732 A 19840421 198633 B  
Priority Applications (No Type Date): SU 3758732 A 19840421  
...Abstract (Basic): The **transplant** is laid with the ends of its base in the grooves in the bodies of the **vertebrae** and the cranial and **caudal** facets of its projection in contact with the adjoining surfaces of the front parts of the bodies of the **vertebrae**, then lodged by hammer impact to the required depth in the diastasis...

16/3,K/14 (Item 14 from file: 350)  
DIALOG(R)File 350:Derwent WPIX

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004448263

WPI Acc No: 1985-275141/198544

XRFX Acc No: N85-205255

**Anterior osteo-plastic surgery corporodesis - by forming end of  
transplant into fork with unequal teeth**

Patent Assignee: FISHCHENKO V YA (FISH-I)

Inventor: FISHCHENKO V Y A; KOVAL D E; SOKOLYUK A M

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
SU 1152581	A	19850430	SU 3667043	A	19830920	198544 B

Priority Applications (No Type Date): SU 3667043 A 19830920

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
SU 1152581	A		5		

...Abstract (Basic): method of anterior corporodesis involves forming a longitudinal vertical groove in the bodies of the **vertebrae** with canals continuing it in the cranial and **caudal** directions, then introducing a bone **transplant** into it. The ends of **transplant** (16) are shaped in a fork with teeth of different size. The greater tooth (18) of one end of the **transplant** is introduced into the cranial canal (14), then reclination of the **vertebrae** performed and the greater tooth (19) of the second end of the **transplant** (16) is introduced into the **caudal** canal (15...

16/3,X/15 (Item 15 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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003320350

WPI Acc No: 1982-G8364E/198223

**Treatment for dislocation of vertebra - makes bed with grooves in  
adjacent vertebrae fitting transplants in grooves and filling bed with  
transplant**

Patent Assignee: SVERD TRAUMATOLOGY (SVTR-R); SVERD URALSKIE SAMOTSVET (SVUR-R)

Inventor: GLAZYRIN D I; RUZHEV Y U M

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
SU 856440	B	19810826				198223 B

Priority Applications (No Type Date): SU 2755843 A 19790313

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
SU 856440	B		2		

...Abstract (Basic): To prevent recurrence of dislocation, the bed is formed with parallel cranial and **caudal** surfaces from front to back and from top to bottom at a 10-15 degree angle to the horizontal axis of the **vertebral** column and to the whole depth of the **vertebrae**, then on each of the upper and lower walls of the bed in the same direction two parallel 'mirror image' grooves are made. **Transplants** are fitted in them and the free part of the bed filled with **transplants**. Bul. 31/23.8.81. (2pp)



16/3,K/16 (Item 16 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2005 Thomson Derwent. All rts. reserv.  
003279360  
WPI Acc No: 1982-C7369E/198210  
Spine damage treatment - by using transplant having pyramid protrusions  
on cranial and caudal surfaces  
Patent Assignee: KHARK ORTHROP TRAUM (KHOR-R); UKR DOCTOR FINISHING INS  
(UDOC-R)  
Inventor: KHVISYUK N I; MAKOVOZ E M; PRODAN A I  
Number of Countries: 001 Number of Patents: 001  
Patent Family:  
Patent No Kind Date Applicat No Kind Date Week  
SU 833226 B 19810530 198210 B  
Priority Applications (No Type Date): SU 2824507 A 19791005  
Patent Details:  
Patent No Kind Lan Pg Main IPC Filing Notes  
SU 833226 B 2  
...Abstract (Basic): damage treatment and is carried out by total cutting  
of multi-spine disc, splitting and **vertebrae** positioning with  
subsequent defect **replacement** by a **transplant**. In order to prevent  
**vertebrae** displacement and narrowing of the inter-spine intervals, the  
bone plastic is carried out by a **transplant**. The **transplant cranial  
and caudal surfaces** are provided with pyramidal protrusions having  
acute apex angle. Bul.20/30.5.81...

16/3,K/17 (Item 17 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2005 Thomson Derwent. All rts. reserv.  
002297073  
WPI Acc No: 1980-A3505C/198002  
Atlas-axial joint surgical fusion - by forming of bone transplants  
inserted into chamfered slots to atlas and closing plates  
Patent Assignee: NOVOKUZNETSK DOCTOR (NOVO-R)  
Inventor: NIKITIN M N  
Number of Countries: 001 Number of Patents: 001  
Patent Family:  
Patent No Kind Date Applicat No Kind Date Week  
SU 657812 A 19790425 198002 B  
Priority Applications (No Type Date): SU 2528156 A 19770921  
...Abstract (Basic): Stable setting of fractured **vertebra** in the neck is  
ensured by drilling holes in the **caudal** half of the atlas and in  
closing plates to form slots. Bone **transplants** are inserted into the  
slots in the cranio- **caudal** direction the chamfer end of the slots  
easing the operation. The arthrodesis of the allanto-axial joints is  
carried out by access by the first neck **vertebra** through the mouth.  
The capsules are secured with hanging threads, and the **transplants**  
are filed to match the slots.

16/3,K/18 (Item 18 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2005 Thomson Derwent. All rts. reserv.  
002126639  
WPI Acc No: 1979-E6570B/197921

**Frontal spondylodesis surgery - uses cylindrical sector cover from  
anterior of vertebral bodies and intervertebral discs**

Patent Assignee: RIGA TRAUMATOLOG OR (RITR-R)

Inventor: TSERLYUK B M

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
SU 615919	A	19780608				197921 B

Priority Applications (No Type Date): SU 2403659 A 19760913

...Abstract (Basic): The **transplant** is inserted into the bodies of **vertebras** below and above, and then the cover is placed into the groove followed by fixation. The tunnel is made with a drill through the **caudal** and cranial sides of contiguous **vertebras** for hammering in the **transplant**.

16/3,K/19 (Item 1 from file: 347)

DIALOG(R)File 347:JAPIO

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07530520 \*\*Image available\*\*

**INTERVERTEBRAL DISK PROSTHESIS**

PUB. NO.: 2003-024353 [JP 2003024353 A]

PUBLISHED: January 28, 2003 (20030128)

INVENTOR(s): FEHLING GERALD

FEHLING GUIDO

APPLICANT(s): FEHLING INSTRUMENTS GMBH

APPL. NO.: 2002-167003 [JP 2002167003]

FILED: June 07, 2002 (20020607)

PRIORITY: 01 10132588 [DE 10132588], DE (Germany), July 05, 2001  
(20010705)

**ABSTRACT**

PROBLEM TO BE SOLVED: To provide a intervertebral disk **prosthesis** which combines excellent motility of the **vertebrae** with long-lasting effectiveness.

SOLUTION: In the intervertebral disk **prosthesis** provided with a cranial disk, a **caudal** disk practically parallel to and axially apart from the cranial disk and an elastic means...

File 350:Derwent WPIX 1963-2005/UD,UM &UP=200550  
(c) 2005 Thomson Derwent

File 347:JAPIO Nov 1976-2005/Apr(Updated 050801)  
(c) 2005 JPO & JAPIO

Set	Items	Description
S1	90	(FACET OR ZYGAPOPHYSIAL) ( ) JOINT? ?
S2	41	CEPHALAD? ?
S3	246	CEPHALIC
S4	246	S3 NOT S2
S5	7543	VERTEBRA? ?
S6	155052	PROSTHES?S OR IMPLANT?
S7	93664	GRAFT??? OR TRANSPLANT?
S8	542371	REPLACE? ? OR REPLACING OR REPLACEMENT OR SUBSTITUT?
S9	85666	ARTIFICIAL
S10	6597	PROSTHETIC? ?
S11	2	S4 AND (S1 OR S5) AND S6:S10
S12	41	S2 NOT S3
S13	0	S12 AND (S1 OR S5) AND (S10 NOT S6:S9)

11/34/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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016871041 \*\*Image available\*\*

WPI Acc No: 2005-195346/200520

Facet implant for articulating surfaces of facet joints comprises superior implant and inferior implant for placement on inferior articular facet and for interacting with translaminar fixation mechanism

Patent Assignee: GROB D (GROB-I); HALE H W (HALE-I); GERRASPINE AG (GERR-N); JOHNSON M C (JOHN-I)

Inventor: GROB D; HALE H W

Number of Countries: 108 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20050049705	A1	20050303	US 2003651871	A	20030829	200520 B
WO 200520850	A2	20050310	WO 2004US28094	A	20040827	200520

Priority Applications (No Type Date): US 2003651871 A 20030829

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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US 20050049705	A1		15	A61F-002/44	
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WO 200520850	A2	E		A61F-000/00	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

Abstract (Basic): US 20050049705 A1

NOVELTY - A facet **implant** comprises a superior **implant** and an inferior **implant** each having an articulating surface and a fixation surface and being configured for placement on a corresponding articular facet, wherein the inferior **implant** is configured for interacting with a translaminar fixation mechanism and the articulating surfaces are configured to interact.

DETAILED DESCRIPTION - A facet **implant** comprises a superior

**implant** (102) having an articulating surface (38) and a fixation surface and being configured for placement on a superior articular facet (30); an inferior **implant** (104) having an articulating surface (40) and a fixation surface and being configured for placement on an inferior articular facet and for interacting with a translaminar fixation mechanism (106), whereby the articulating surface of the superior **implant** and the articulating surface of the inferior **implant** are configured to interact; and a translaminar fixation mechanism for securing the inferior **implant** to the inferior articular facet.

INDEPENDENT CLAIMS are also included for:

(1) a method for providing articulating surfaces for **facet joint** articular facets comprising creating a space between a superior articular facet and an inferior articular facet; using a rasp to prepare the articulating surface of the inferior articular facet for an inferior **implant**; using a rasp to prepare the articulating surface of the superior articular facet for a superior **implant**; placing the inferior **implant** on the inferior articular facet such that an articulating surface of the inferior **implant** is positioned on the articulating surface of the inferior articular facet; placing the superior **implant** on the superior articular facet such that an articulating surface of the superior **implant** is positioned on the articulating surface of the superior articular facet, wherein the articulating surface of the superior **implant** and the articulating surface of the inferior **implant** are configured to articulate with one another; and

(2) a rasp for preparing an articulating surface of a **facet joint** articular facet for an **implant** comprising handle(s); a shaft connecting the handle(s) to a working end of the rasp; and a curved head at the working end of the rasp having cutting surface(s) configured to cut when the cutting surface is moved in a first direction, but not when the cutting surface is moved in a direction opposite of the first direction.

USE - For treating spinal pathologies, particularly for articulating surfaces of **facet joints**.

ADVANTAGE - The invention increases the percentage of good results in disc **replacement** surgery. It permits greater mobility in cases of spinal problems involving only the **facet joints** and obviates the need for spinal fusion associated with degenerative and congenital problems of the spine.

DESCRIPTION OF DRAWING(S) - The figure shows a **facet implant**.

Normal human lumbar **vertebrae** (12)

**Vertebral** body (14)

Spinous process (22)

Transverse processes (24)

Superior articular process (26)

Inferior articular process (28)

Superior articular facet (30)

Articulating surfaces (38, 40)

Superior **implant** (102)

Inferior **implant** (104)

Translaminar fixation mechanism (106)

pp; 15 DwgNo 5C/11

Technology Focus:

TECHNOLOGY FOCUS - CERAMICS AND GLASS - Preferred Materials: At least one of the articulating surfaces of the inferior **implant** and

the superior **implant** may be composed of ceramic or pyrolytic carbon.

**INSTRUMENTATION AND TESTING - Preferred Components:** The translaminar fixation mechanism comprises a translaminar screw, bolt and/or fixation pin. The inferior **implant** is configured to interact with the translaminar fixation mechanism such that the translaminar fixation mechanism is 0-15degrees offset. At least one of the superior **implant** and the inferior **implant** comprises a surface fixation mechanism. The surface fixation mechanism comprises peg(s), pip(s), ridges, and/or screw(s). It comprises multiple regions wherein each region has ridges oriented in a different direction. At least one of the fixation surfaces of the inferior **implant** and the superior **implant** has a porous coating, a porous onlay material, a biological coating, and/or a surface treatment. The articulating surface of the superior **implant** is curved. The fixation surface of the superior **implant** is curved.

**Preferred Dimensions:** The inferior **implant** is 2-15 mm thick. The superior **implant** is 2-15 mm thick.

**MECHANICAL ENGINEERING - Preferred Components:** The cutting surface is configured to cut when the rasp is moved from the anterior of the **facet joint** articular facet to the posterior of the **facet joint** articular feet. The rasp comprises two handles. The head is moved in a caudal direction by squeezing the handles and in a **cephalic** direction by releasing the handles. Fixation posts at the working end of the rasp are configured for interaction with the lamina or a **cephalic** position of the superior facet.

**METALLURGY - Preferred Materials:** At least one of the articulating surfaces of the inferior **implant** and the superior **implant** may be composed of cobalt-chromium alloy or titanium/aluminum/vanadium (Ti/Al/V).

**POLYMERS - Preferred Material:** At least one of the articulating surfaces of the inferior **implant** and the superior **implant** may be composed of ultra-high molecular weight polyethylene (UHMWPE).

Derwent Class: A17; A96; D22; P32

International Patent Class (Main): A61F-000/00; A61F-002/44

01057184 SUPPLIER NUMBER: 02613710 (THIS IS THE FULL TEXT)  
How spondylolysis can be repaired. (neurosurgical advances - part 2)

**Burr, Lyn**

Patient Care, v17, p73(5)

Jan 30,

1983

PUBLICATION FORMAT: Magazine/Journal ISSN: 0031-305X LANGUAGE: English

RECORD TYPE: Fulltext TARGET AUDIENCE: Professional

WORD COUNT: 890 LINE COUNT: 00091

TEXT:

Patient Care Are there any new therapeutic procedures for managing back and peripheral nerve disorders?

Johnson Yes. My orthopedic colleague, Thomas C. Powers, MD, and I have developed and refined a procedure for the surgical treatment of spondylolysis over the last 25 years. The technique is not fundamentally innovative--it does not involve any new principles--but it is a more precise and expeditious way of decompressing the nerve root and fusing the affected vertebral segment to the sacrum below and to the normal vertebra above in the most common L5 spondylolysis. We call this new therapeutic procedure isthmic decompression and fusion [see "The isthmic decompression and fusion procedure," page 79].

Decompression of the nerve root is performed under magnification using a semi-microsurgical technique: I use a loupe or magnifying glass rather than a microscope. We've had an exceedingly high rate of success with the procedure, based on our observations in about 100 patients. We've experienced no mortality and negligible morbidity, although one patient who developed thrombophlebitis postoperatively died later with a cerebral thrombosis.

PC What are the implications of this technique for the primary care physician?

Johnson Frequently, spondylolysis is unrecognized, but even more often, it's badly handled surgically. I'd like to emphasize to the primary care physician not only the importance of recognition of spondylolysis but also that of referral to a surgeon familiar with the principles of nerve root decompression at the isthmus and wide (transverse process) fusion.

The primary care physician often must differentiate among the four common conditions that produce back and leg pain, the disorders in the low back that have surgical significance. These four conditions include chronic degeneration of the disk, which is often associated with radicular pain. Differentiating pain caused by disk changes alone vs pain due to nerve root compression is necessary. Some physicians don't recognize that a diffuse aching leg pain that proceeds no further than the knee is usually diskogenic rather than radicular. Thus, if the patient's pain stops at the knee, in the case of low lumbar disk disease, the physician is probably dealing with referred diskogenic pain rather than pain from nerve root compression.

PC What are the four common disorders of the low back that have definite surgical significance?

Johnson I'll list them, but not necessarily in order of frequency:

\* Herniated nucleus pulposus, the so-called slipped, or ruptured, disk

\* Degenerated disk joints This term implies that the disk joint is progressively degenerating and settling. As a result, alterations of bony relationships occur, such as override of the facets, narrowing of the intervertebral foramina, and production of a transverse ridge by the redundant annulus fibrosus and posterior longitudinal ligament--the soft-tissue structures over the back of the disk that may encroach on the spinal canal.

The transverse ridge produced by the "settling" disk and the overriding condition of the facets is a common cause of radiating back pain that closely simulates disk herniation. Sometimes, the unknowing surgeon may remove some of the redundant fold of the annulus and posterior ligament, assuming he's removing herniated disk, and consequently may achieve less than the best results. Fusion is of value in these cases.

\* Hypertrophic deformities with neural compression This category

includes hypertrophic osteoarthritis, in which the patient sometimes has enlargement of the apophyseal joints sufficient to project into the dural sac, thus producing significant defects visible on a myelogram. The use of computerized tomography with reconstructed pictures of cross sections through the spinal canal showing such bony alterations has led to the introduction of a new term--lateral recess stenosis--for this condition.

\* Spondylolysis This condition results from an early acquired defect in the isthmus, or pars interarticularis, the part of the vertebra between the superior and inferior facets of a given vertebral segment. I prefer for nonanatomic but accurate terms of "ascending" and "descending" facets to avoid confusion when we're talking about a single apophyseal joint. Above the isthmus the ascending facet joins the vertebra above, and the descending facet joins the vertebra below. If the isthmus separates, the front half of the vertebra may slide forward with the entire vertebra column that lies above it--a condition known as spondylolisthesis, a slipping forward of the anterior portion of the lytic segment. By itself, spondylolisthesis is not clinically significant; I'm referring only to the forward slipping.

PC What is clinical importance in spondylolysis?

Johnson The importance aspect of the condition is the defect in the isthmus immediately overlying the course of the nerve root of that same segment--that is, bearing the same number as that segment. Most commonly, spondylolysis occurs at the L5 vertebral segment.

The isthmic defect produces a false joint in which bone and cartilage deformities develop. Sometimes you'll see lumps or knobs of bone and cartilage resembling a mulberry. Commonly, you'll find a small nipplelike projection of bone pointing cephalad. Thus, the bone and cartilage deformities develop above--posterior to--the nerve root. This isthmic defect is bilateral in symptomatic patients and acts like a joint, but it's a misplaced and deformed joint, and any movement in this isthmic deformity may irritate the nerve lying immediately anterior. [For more information and a detailed discussion of the diagnosis of spondylolysis, see "Diagnosing spondylolysis," page 74.]

PC Is spondylolysis a common condition?

Johnson Yes, although often it's asymptomatic. About 5 percent of the population in the United States has an isthmic defect. A much smaller percentage of the population has clinical symptoms.

PC How do you treat the patient with clinical symptoms of spondylolysis?

Johnson Once the patient has clinical symptoms, the condition is likely to progress, because he or she has a weight-bearing mechanical problem. The automobile tire that's half flat is highly likely eventually to become completely flat, and it's the same story with the patient with spondylolysis. Generally, the patient's condition deteriorates fairly rapidly, but a chronic recurrent course also is common. Back pain increases because of the motion in the false joint and the isthmus; leg pain increases, particularly in the pattern of L5 radiculopathy in the typical case of L5 spondylolysis. Consequently, a number of surgeons interested in this problem say that the proper management of spondylolysis involves not only decompression or removal of the isthmic deformity but vertebral fusion as well.

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**SPINAL SPLINTING RESCUED TRAUMATIZED TISSUE CRADLED IN SOLUBLE FORM-FITTING  
SCAFFOLD, RATS MODELING CUT CORD LARGELY RECOVERED USE OF LIMBS.**

Leff, David N.

BIOWORLD Today, v13, n49, pNA

March 14, 2002

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Trade

Word Count: 1116

... using a dissecting microscope, we made a laminectomy at the ninth to 10th thoracic spinal **vertebrae**, following by a lateral hemisection. For this, with a surgical blade, we created a 4...  
...incision along the midline of the cord, followed by lateral cuts at the rostral and **caudal** ends." He characterized the four cohorts into which the 50 animals were divided - each reflecting...  
...NSC- seeded scaffold 'scaffold plus cells' - 13 rats, or one of three control treatments (polymer **implant** without NSCs 'scaffold alone' (11 rats); NSCs suspended in medium 'cells alone' (12 rats); or...

22/3,K/1 (Item 1 from file: 149)

DIALOG(R) File 149:TGG Health&Wellness DB(SM)

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01057184 SUPPLIER NUMBER: 02613710 (USE FORMAT 7 OR 9 FOR FULL TEXT)

How spondylolysis can be repaired. (neurosurgical advances - part 2)

Burr, Lyn

Patient Care, v17, p73(5)

Jan 30,

1983

PUBLICATION FORMAT: Magazine/Journal ISSN: 0031-305X LANGUAGE: English

RECORD TYPE: Fulltext TARGET AUDIENCE: Professional

WORD COUNT: 890 LINE COUNT: 00091

... root and fusing the affected vertebral segment to the sacrum below and to the normal **vertebra** above in the most common L5 spondylolysis. We call this new therapeutic procedure isthmic decompression...  
...from an early acquired defect in the isthmus, or pars interarticularis, the part of the **vertebra** between the superior and inferior facets of a given **vertebral** segment. I prefer for nonanatomic but accurate terms of "ascending" and "descending" facets to avoid...  
...re talking about a single apophyseal joint. Above the isthmus the ascending facet joins the **vertebra** above, and the descending facet joins the **vertebra** below. If the isthmus separates, the front half of the **vertebra** may slide forward with the entire **vertebra** column that lies above it--a condition known as spondylolisthesis, a slipping forward of the  
...

...is, bearing the same number as that segment. Most commonly, spondylolysis occurs at the L5 **vertebral** segment.

The isthmic defect produces a false joint in which bone and cartilage deformities develop...

...cartilage resembling a mulberry. Commonly, you'll find a small nipplelike projection of bone pointing **cephalad**. Thus, the bone and cartilage deformities develop above--posterior to--the nerve root. This isthmic...proper management of spondylolysis involves not only decompression or removal of the isthmic deformity but **vertebral** fusion as well.

...DESCRIPTORS: **Vertebrae** --



**PLAQUE D'APPUI POUR FRACTURES CERVICALES ET CERVICO-TROCHANTERIENNES**

**Patent number:** FR2656789  
**Publication date:** 1991-07-12  
**Inventor:** JEAN-MARIE HARDY  
**Applicant:** HARDY JEAN MARIE (FR)  
**Classification:**  
- **International:** A61B17/58  
- **European:** A61B17/74  
**Application number:** FR19900000400 19900105  
**Priority number(s):** FR19900000400 19900105

**Also published as:**

WO9109571 (A1)

EP0462263 (A1)

[Report a data error here](#)**Abstract of FR2656789**

The support plate comprises a cylindrical shaft (1a) designed to cooperate with a cephalic screw (2) previously placed in the corresponding part of the caput of the bone. This plate (1) has a shape and size which allow it to rest on the whirlbone while being arranged to allow at least one stem (3) to be freely engaged and positioned in the medullary canal so that the position of the plate (1) is controlled by the cephalic screw.

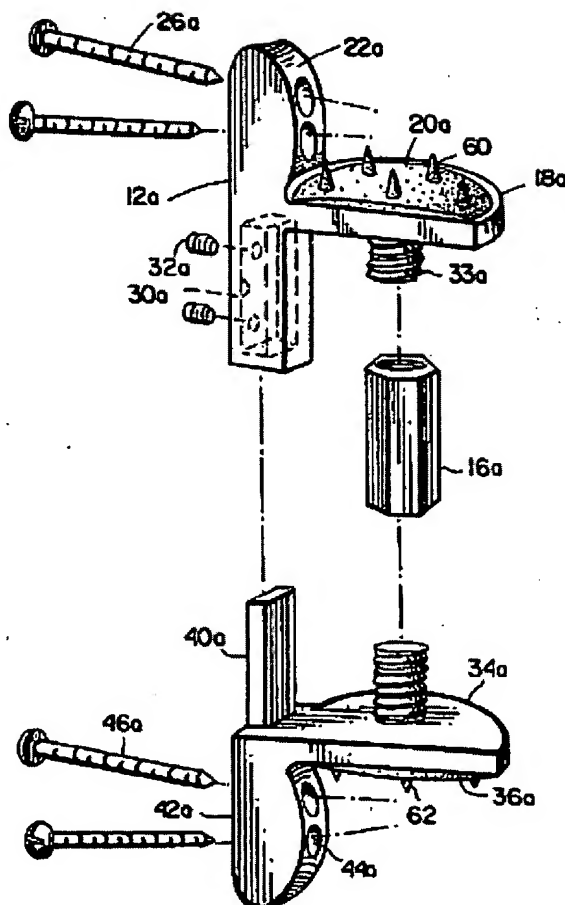
## Vertebral body prosthesis

**Patent number:** US5458641  
**Publication date:** 1995-10-17  
**Inventor:** RAMIREZ JIMENEZ JUAN J (MX)  
**Applicant:**  
**Classification:**  
**- international:** A61F2/44  
**- european:** A61F2/30G; A61F2/44  
**Application number:** US19930117619 19930908  
**Priority number(s):** US19930117619 19930908

Report a data error here

### Abstract of US5458641

The vertebral body prosthesis includes cephalic and caudal components with a separating setscrew therebetween. The cephalic component includes a generally horizontal member having an upper porous, water-permeable surface complementary shaped to the underside of the adjacent vertebral body, a securement element upstanding along one side for receiving screws to secure the cephalic component to the upper vertebral body and a depending guide element. The lower caudal component includes a generally horizontally disposed member having a porous, water-permeable undersurface complementary shaped to the upper surface of the lower adjacent vertebral body, a depending securement element along one side for receiving screws to secure the caudal component to the lower vertebral body and an upstanding guide element for engaging the depending guide element of the cephalic component to prevent rotation of the components. A separating setscrew is disposed between the members of the components and is adjustable to adjustably space the components relative to one another whereby a vertebral body prosthesis is formed.



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**CEPHALIC CERVICAL PROSTHESIS FOR THE HIP**

**Patent number:** AR245883  
**Publication date:** 1994-03-30  
**Inventor:**  
**Applicant:** VENTURELLI EMILIO  
**Classification:**  
**- international:** A61F2/32  
**- european:**  
**Application number:** AR19920321639 19920116  
**Priority number(s):** AR19920321639 19920116

**Report a data error here**

Abstract not available for AR245883

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Data supplied from the **esp@cenet** database - Worldwide

## Inventors

File 155:MEDLINE(R) 1951-2005/Aug W1  
 (c) format only 2005 Dialog  
 File 5:Biosis Previews(R) 1969-2005/Aug W1  
 (c) 2005 BIOSIS  
 File 73:EMBASE 1974-2005/Aug 10  
 (c) 2005 Elsevier Science B.V.  
 File 34:SciSearch(R) Cited Ref Sci 1990-2005/Aug W1  
 (c) 2005 Inst for Sci Info  
 File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec  
 (c) 1998 Inst for Sci Info  
 File 315:ChemEng & Biotech Abs 1970-2005/Jul  
 (c) 2005 DECHEMA  
 File 357:Derwent Biotech Res. \_1982-2005/Aug W2  
 (c) 2005 Thomson Derwent & ISI  
 File 358:Current BioTech Abs 1983-2005/Jul  
 (c) 2005 DECHEMA

Set	Items	Description
S1	429	AU=(STINSON, D? OR STINSON D?)
S2	9662	AU=(JONES L? OR JONES, L?)
S3	290	AU=(SCRIBNER R? OR SCRIBNER, R?)
S4	59	AU=(REILEY M? OR REILEY, M?)
S5	4032	CEPHALAD
S6	4441	(FACET OR ZYGAPOPHYSIAL) ( )JOINT? ?
S7	0	S1:S4 AND S5 AND S6
S8	0	S1:S4 AND S5:S6
S9	26	S5 AND S6
S10	11	RD (unique items) [not by inventors]

File 350:Derwent WPIX 1963-2005/UD,UM &UP=200550  
 (c) 2005 Thomson Derwent  
 File 349:PCT FULLTEXT 1979-2005/UB=20050804,UT=20050728  
 (c) 2005 WIPO/Univentio  
 File 348:EUROPEAN PATENTS 1978-2005/Jul W05  
 (c) 2005 European Patent Office

Set	Items	Description
S1	18	AU='STINSON D' OR AU='STINSON D C' OR AU='STINSON DAVID' OR AU='STINSON DAVID C'
S2	117	AU='JONES L' OR AU='JONES L R' OR AU='JONES LAWRENCE'
S3	6	AU='JONES LAWRENCE R'
S4	68	AU='SCRIBNER R' OR AU='SCRIBNER R M' OR AU='SCRIBNER ROBERT T' OR AU='SCRIBNER ROBERT M'
S5	90	AU='REILEY M' OR AU='REILEY M A' OR AU='REILEY MARK' OR AU='REILEY MARK A'
S6	405	CEPHALAD
S7	475	(FACET OR ZYGOPOPHYSIAL) ( )JOINT? ?
S8	14	S1:S5 AND S6 AND S7
S9	14	IDPAT (sorted in duplicate/non-duplicate order)
S10	9	IDPAT (primary/non-duplicate records only)

10/3,AB,IC/1 (Item 1 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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 017120175

WPI Acc No: 2005-444518/200545

ASRC Searcher: Jeanne Horrigan  
Serial 10/615417  
August 12, 2005

57

Related WPI Acc No: 2004-804249

XRPX Acc No: N05-361281

**Spinal prosthesis implanting method for treating spinal pathologies, involves advancing distal end of fastener towards other side of lamina in order to secure bearing prosthesis**

Patent Assignee: JONES L R (JONE-I); REILEY M A (REIL-I); STINSON D (STIN-I); YUAN H (YUAN-I)

Inventor: JONES L R ; REILEY M A ; STINSON D ; YUAN H

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20050143818	A1	20050630	US 2003438294	A	20030514	200545 B
			US 2004567933	P	20040503	
			US 2004973834	A	20041025	

Priority Applications (No Type Date): US 2004567933 P 20040503; US 2003438294 A 20030514; US 2004973834 A 20041025

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20050143818	A1		57	A61F-002/44	CIP of application US 2003438294 Provisional application US 2004567933

Abstract (Basic): US 20050143818 A1

Abstract (Basic):

NOVELTY - The method involves forming a passage from one side to another side of a lamina (62) at a spinous region (64). The distal end of a fastener is advanced from one side towards the other side of the lamina, and stopped once a proximal end rest on the side of the lamina. A bearing prosthesis (38) is secured to the distal end of the fastener.

USE - For implanting spinal prosthesis used for treating spinal pathologies.

ADVANTAGE - Eliminates blocking pedicle portion of **cephalad** vertebrae during prosthesis implantation. Eliminates guide for prosthesis installation. Minimizes size and extent of surgical incision during repair or replacement of **facet joints**.

DESCRIPTION OF DRAWING(S) - The figure shows the side view of the prosthesis.

Bearing prosthesis (38)  
Caudal vertebrae (60,70)  
Lamina (62)  
Spinous region (64)  
pp; 57 DwgNo 5/35

International Patent Class (Main): A61F-002/44

10/3,AB,IC/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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016741312

WPI Acc No: 2005-065609/200507

XRPX Acc No: N05-056839

**Prosthesis for use on vertebra, has fixation mechanism adapted to attach at least one artificial facet joint bearing element to the vertebra without penetrating the bone portion of vertebra**

Patent Assignee: ARCHUS ORTHOPEDICS INC (ARCH-N)

Inventor: JONES L R ; REILEY M A ; SCRIBNER R M ; STINSON D ; JONES L ; REILEY M ; SCRIBNER R

Number of Countries: 108 Number of Patents: 002

Serial 10/615417

August 12, 2005

## Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20050010291	A1	20050113	US 2003615417	A	20030708	200507 B
WO 200509301	A1	20050203	WO 2004US16774	A	20040524	200510

Priority Applications (No Type Date): US 2003615417 A 20030708

## Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20050010291	A1	21	A61F-002/44	
WO 200509301	A1 E		A61F-002/44	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ  
 CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID  
 IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ  
 NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ  
 UA UG US UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG BW CH CY CZ DE DK EA EE ES FI FR  
 GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL  
 SZ TR TZ UG ZM ZW

Abstract (Basic): US 20050010291 A1

## Abstract (Basic):

NOVELTY - A fixation mechanism is adapted to attach at least one artificial **facet joint** bearing element (38,52) to the vertebra without penetrating the bone portion of the vertebra.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a **cephalad facet joint** implanting method.

USE - Used for replacing **cephalad** portion of natural **facet joint** on vertebra for treating spinal pathologies.

ADVANTAGE - Reduces pain being felt by the patient and improve stabilization of the joints by holding the vertebrae in fixed position.

DESCRIPTION OF DRAWING(S) - The figure is a bottom view of an artificial **facet joint** prosthesis.

Artificial **facet joint** bearing element (38,52)

Bearing surfaces (40,54)

Lower clamp portion (41)

pp; 21 DwgNo 11/20

International Patent Class (Main): A61F-002/44

10/3,AB,IC/3 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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016645536

WPI Acc No: 2004-804249/200479

Related WPI Acc No: 2005-444518

XRPX Acc No: N04-634007

Prosthesis used for replacing a **cephalad** portion of natural **face joint** on vertebra, has fixing element adapted for insertion through lamina portion of vertebra to affix artificial **facet joint** element to vertebra

Patent Assignee: ARCHUS ORTHOPEDICS INC (ARCH-N)

Inventor: JONES L R ; REILEY M A ; STINSON D ; YUAN H A; JONES L ;  
 REILEY M ; YUAN H

Number of Countries: 108 Number of Patents: 002

## Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20040230304	A1	20041118	US 2003438294	A	20030514	200479 B
WO 2004103227	A1	20041202	WO 2004US11113	A	20040412	200479

Serial 10/615417

August 12, 2005

Priority Applications (No Type Date): US 2003438294 A 20030514

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 20040230304 A1 26 A61F-002/44

WO 2004103227 A1 E A61F-002/44

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ  
CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID  
IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ  
NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ  
UA UG US UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG BW CH CY CZ DE DK EA EE ES FI FR  
GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PL PT RO SD SE SI SK SL SZ  
TR TZ UG ZM ZW

Abstract (Basic): US 20040230304 A1

Abstract (Basic):

NOVELTY - A fixing element (42) extending from an artificial **facet joint** element, is adapted for insertion through a lamina portion of the vertebra to affix the artificial **facet joint** element to the vertebra.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method for implanting a **facet joint** prosthesis.

USE - Used for replacing a **cephalad** portion of natural face joint on vertebra for treating diseases e.g. osteoarthritis, ankylosing spondylolysis and degenerative spondylolisthesis.

ADVANTAGE - Improve spinal stabilization and prevents movement of the vertebrae when necessary.

DESCRIPTION OF DRAWING(S) - The figure is a bottom view of a pair of artificial **cephalad** and caudal **facet joint** prosthesis.

Bearing surface (40)

Fixing elements (42,56)

bearing element (52)

Fixation surface (57)

pp; 26 DwgNo 7E/14

International Patent Class (Main): A61F-002/44

International Patent Class (Additional): A61B-017/17; A61F-002/46

10/3,AB,IC/4 (Item 4 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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016645523

WPI Acc No: 2004-804236/200479

XRPX Acc No: N04-633994

Tool for installing **facet joint prosthesis**, has caudal **facet joint bearing element spacing adjuster** which changes the spacing between right and left caudal **facet joint bearing element attachment mechanisms**

Patent Assignee: ARCHUS ORTHOPEDICS INC (ARCH-N)

Inventor: JONES L R ; REILEY M A ; STINSON D ; YUAN H A; JONES L ;

REILEY M ; YUAN H

Number of Countries: 108 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20040230201	A1	20041118	US 2003438295	A	20030514	200479 B
WO 2004103228	A1	20041202	WO 2004US11335	A	20040412	200479

Priority Applications (No Type Date): US 2003438295 A 20030514

Patent Details:

Serial 10/615417

August 12, 2005

Patent No Kind Lan Pg Main IPC Filing Notes

US 20040230201 A1 24 A61B-017/58

WO 2004103228 A1 E A61F-002/46

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ  
CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID  
IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ  
NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ  
UA UG US UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG BW CH CY CZ DE DK EA EE ES FI FR  
GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PL PT RO SD SE SI SK SL SZ  
TR TZ UG ZM ZW

Abstract (Basic): US 20040230201 A1

Abstract (Basic):

NOVELTY - A caudal **facet joint** bearing element spacing adjuster changes the spacing between right and left caudal **facet joint** bearing element attachment mechanisms.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(A) a guide tool;

(B) a **facet joint** prosthesis installation assembly; and

(C) a method for implanting a **cephalad facet joint** prosthesis

USE - For installing **facet joint** prosthesis.

ADVANTAGE - Puts the spine in proper alignment or return the spine to a desired anatomy. Prevents alteration of spine biomechanics since relative motion of the vertebrae is not permanently limited.

DESCRIPTION OF DRAWING(S) - The figure shows the left view of a pair of artificial **cephalad** and caudal **facet joint** prosthesis.

Screw (42)

Bearing element (52)

Hole (52)

Fixation element (56)

pp; 24 DwgNo 7D/14

International Patent Class (Main): A61B-017/58; A61F-002/46

International Patent Class (Additional): A61B-017/17

10/3,AB,IC/5 (Item 5 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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016457987

WPI Acc No: 2004-615905/200459

XRPX Acc No: N04-487005

**Facet arthroplasty device for treatment of various types of spinal pathologies, has artificial facet joint structure adapted to replace cephalad portion of natural facet joint after removing cephalad portion from vertebral body**

Patent Assignee: ARCHUS ORTHOPEDICS INC (ARCH-N)

Inventor: REILEY M A

Number of Countries: 099 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200471358	A1	20040826	WO 2003US3620	A	20030206	200459 B
AU 2003210887	A1	20040906	AU 2003210887	A	20030206	200480
			WO 2003US3620	A	20030206	

Priority Applications (No Type Date): WO 2003US3620 A 20030206

Patent Details:



Patent No Kind Lan Pg Main IPC Filing Notes

WO 200471358 A1 E 42 A61F-002/44

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA  
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN  
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ  
OM PH PL PT RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM  
ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB  
GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG  
ZM ZW

AU 2003210887 A1 A61F-002/44 Based on patent WO 200471358

Abstract (Basic): WO 200471358 A1

Abstract (Basic):

NOVELTY - The prosthesis device (26) has an artificial **facet joint** structure (28) adapted to replace the **cephalad** portion of a natural **facet joint** after removing the **cephalad** portion of the natural **facet joint** from the vertebral body (10). A bar (30) is to be fixed to the vertebral body.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(a) Replacing **cephalad** portion of a natural **facet joint** on a vertebral body;

(b) Prosthesis assembly for replacing natural **facet joint** ; and

(c) Total replacement of natural **facet joint** .

USE - For treatment of various types of spinal pathologies.

ADVANTAGE - Avoids the problems of spine stiffness, increased loads on unfused levels, and predictable failure rates associated with spinal arthrodesis. Provides a spinal prosthesis designed to replace **facet joints** or part of the lumina at virtually all spinal levels. Reduces or eliminates incidence of spondylolisthesis by restoring **facet joint** articulation to a desired level of function. Allows for the removal and replacement of injured, diseased or deteriorating natural superior articular surfaces and supporting boney structure on the vertebral body below the **facet joint** , to provide improved support for the spinal column.

DESCRIPTION OF DRAWING(S) - The figure is a superior section view of a vertebral body showing the fixation of a caudal prosthesis by pedicle screws to the vertebral body.

Vertebral body (10)

Pedicles (14)

Facet arthroplasty device (26)

Artificial **facet joint** structure (28)

Bar (30)

pp; 42 DwgNo 3/9

International Patent Class (Main): A61F-002/44

10/3,AB,IC/6 (Item 6 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015913216

WPI Acc No: 2004-071056/200407

Related WPI Acc No: 2001-328578

XRPX Acc No: N04-057182

Facet joint prosthesis for vertebral body, has fixation region sized to accommodate adjustment of component on vertebral body and receiving

**fixation unit to fix component on or near pedicle**

Patent Assignee: ARCHUS ORTHOPEDICS INC (ARCH-N)

Inventor: DAVIDSON J; REILEY M A ; SCRIBNER R M

Number of Countries: 100 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 2003101350	A1	20031211	WO 2003US17094	A	20030530	200407 B
AU 2003238834	A1	20031219	AU 2003238834	A	20030530	200449
EP 1555965	A1	20050727	EP 2003734292	A	20030530	200549
			WO 2003US17094	A	20030530	

Priority Applications (No Type Date): US 2002158563 A 20020530

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 2003101350 A1 E 68 A61F-002/44

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA  
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN  
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ

OM PH PL PT RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB  
GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ  
UG ZM ZW

AU 2003238834 A1 A61F-002/44 Based on patent WO 2003101350

EP 1555965 A1 E A61F-002/44 Based on patent WO 2003101350

Designated States (Regional): AL AT BE BG CH CY CZ DE DK EE ES FI FR GB  
GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

Abstract (Basic): WO 2003101350 A1

Abstract (Basic):

NOVELTY - The prosthesis (36, 38) has a component sized to be fixed to a vertebral body and an artificial **facet joint** structure that replaces a portion of a natural **facet joint**. A fixation region on the component receives a fixation unit (52) to fix the component to the body on or near a pedicle. The fixation region is sized to accommodate adjustment of the component on the vertebral body.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) a prosthesis assembly

(b) a method of replacing a portion of a natural **facet joint** on a vertebral body.

USE - Used for replacement of a natural **facet joint** with an artificial **facet joint** surface.

ADVANTAGE - The prosthesis provides for posterior-anterior adjustment and both prostheses permit lateral adjustment and adjustment to accommodate interpedicle distance and provide a pre-defined lordotic and pedicle entry angle, thereby restoring desired articulation or bony anatomy.

DESCRIPTION OF DRAWING(S) - The drawing shows a perspective view of a **cephalad** prosthesis in articulation with a caudal prosthesis.

Prosthesis (36, 38)

Artificial facet structures (40)

Chimney (42)

Vertical openings (50, 56)

Fixation units (52)

pp; 68 DwgNo 6/38

International Patent Class (Main): A61F-002/44

10/3,AB,IC/7 (Item 7 from file: 348)  
DIALOG(R) File 348:EUROPEAN PATENTS  
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01808424  
**Facet arthroplasty devices and methods**  
**Facettenarthroplastiegeräte und Verfahren**  
**Dispositifs et techniques d'arthroplastie facettaire**  
PATENT ASSIGNEE:  
ARCHUS ORTHOPEDICS INC., (4629960), 8624 154th Avenue NE, Redmond, WA  
98052, (US), (Applicant designated States: all)  
INVENTOR:  
Reiley, Mark A. , 360 Magnolia Av., Piedmont, California 94611, (US  
LEGAL REPRESENTATIVE:  
Dee, Ian Mark (78652), Eric Potter Clarkson, Park View House, 58 The  
Ropewalk, Nottingham NG1 5DD, (GB)  
PATENT (CC, No, Kind, Date): EP 1475058 A2 041110 (Basic)  
EP 1475058 A3 041201  
APPLICATION (CC, No, Date): EP 2004077299 001020;  
PRIORITY (CC, No, Date): US 160891 P 991022  
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE  
RELATED PARENT NUMBER(S) - PN (AN):  
EP 1223872 (EP 2000973828)  
INTERNATIONAL PATENT CLASS: A61F-002/44  
ABSTRACT EP 1475058 A3  
A **cephalad** prosthesis (330) for replacing all or a portion of a  
**cephalad** portion of a natural **facet joint** on a vertebral body is  
described. The prosthesis comprises: a prosthesis body (310) for  
accommodating fixation to the vertebral body at or near a pedicle (14)  
and without support by a lamina, and an artificial **cephalad facet**  
**joint** structure carried by the prosthesis body which is adapted and  
configured to replace all or a portion of a **cephalad** portion of a  
natural **facet joint** .  
ABSTRACT WORD COUNT: 84  
NOTE: Figure number on first page: 2  
LANGUAGE (Publication,Procedural,Application): English; English; English  
FULLTEXT AVAILABILITY:  
Available Text Language Update Word Count  
CLAIMS A (English) 200446 892  
SPEC A (English) 200446 10706  
Total word count - document A 11598  
Total word count - document B 0  
Total word count - documents A + B 11598

10/3,AB,IC/9 (Item 9 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
(c) 2005 WIPO/Univentio. All rts. reserv.  
00797086  
**FACET ARTHROPLASTY DEVICES AND METHODS**  
**DISPOSITIF D'ARTHROPLASTIE FACETTAIRE ET TECHNIQUES**  
Patent Applicant/Inventor:  
REILEY Mark A , 304 Pala Avenue, Piedmont, CA 94611, US, US (Residence),  
US (Nationality  
Legal Representative:  
RYAN Daniel D (et al) (agent), P.O. Box 26618, Milwaukee, WI 53226, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200130248 A1 20010503 (WO 0130248)  
Application: WO 2000US29347 20001020 (PCT/WO US0029347)  
Priority Application: US 99160891 19991022

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE  
ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT  
LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM  
TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: A61B-017/56

Publication Language: English

Filing Language: English

Fulltext Word Count: 11764

English Abstract

Devices and surgical methods treat various types of spinal pathologies including degenerative spondylolisthesis, spinal stenosis, degenerative lumbar scoliosis and kypho-scoliosis. A universal facet prosthesis (330) includes a cup member (315) fixed to a stem (310) and a separate surface member (325) that is held within the cup member (315).